Vishay Lead-Free Family Summary Sheet - Active Components

Product Description			IPC/JEDEC Standard 609A - Pb Free "2nd-Level Interconnect" Status									Soldering & Reflow Profile					RoHS Status					China Pollution Act Information (SJ/T11363-2006) - China RoHS Status									PCN Status	
Technology/ Product Line	Product Family	Vishay Division	Pb-Free Qualification Report Available (Yes/No)	Pb-Free Samples Available (Yes/No)	Pb-Free Mass Production (QY)	PbBPb-free Material Code Marking	How to Order Lead Free Part (Web)	Termination Plating Finish	Plating Underlayer	Termination Base Material/Alloy	Thru Lead (Sn/Pb) Product Termination available (Yes/No)	J-STD-020 Moisture Sensitivity Level Rating	Backward Compatibility	Peak Reflow Temperature (Deg C)	Time @ Peak Reflow Temperature (sec)	Maximum Number of Cycles Allowed @ Peak Reflow Temperature	RoHS Compliant (Yes/No/Yes&E)	Exemptions Used (Exemption # only)	RoHS Qualification Report Available (Yes/No)	RoHS Compliant Samples Available (Yes/No)	RoHS Compliant Mass Production (QY)	China RoHS Compliant (YES/NO) 符合中国 RoHS (是/否)	EPUP (YEARS) 环保使用期限 (年)	Location of Hazardous Substance(s) 有害物质的位置和名称	Pb 铅 X for C>MCV O for C<MCV 0,1 wt% (SJ/T 11363-2006)	Hg 汞 X for C>MCV O for C<MCV 0,1 wt% (SJ/T 11363-2006)	Cd 镉 X for C>MCV O for C<MCV 0,01 wt% (SJ/T 11363-2006)	Cr(VI) 六价铬 X for C>MCV O for C<MCV 0,1 wt% (SJ/T 11363-2006)	PBB 多溴联苯 X for C>MCV O for C<MCV 0,1 wt% (SJ/T 11363-2006)	PBDE 多溴二苯醚 X for C>MCV O for C<MCV 0,1 wt% (SJ/T 11363-2006)	Product Change Notification No./ Rev#	Product Change Notification Date
MOSFETS																															
TMOS, SC-70	Si1ssc0L	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Alloy 42	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, SC-70	Si1ssDH	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, SC-75A	Si1ssR	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Alloy 42	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, SC-89	Si1ssA	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Alloy 42	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, SOT-23	Si2xxCS	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, Small Signal, SOT-23	2N7002x, ThiXXXR, VHiXXXR, TPmXXR, VPmXXR	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, Small Signal, TO-92	2N7000KL, ThiXXXKL, VHiXXXKL, TPmXXL, VPmXXL	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Alloy 42	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, TSOP-6	Si3xxDV	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, ChipFET	Si5xxDC	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, ChipFET PowerPAK	SiSxxDU	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, TSSOP-8	SiSxxCQ	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, PowerPAK 1212	Si7xxDN	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, PowerPAK SO8	Si7xxDP	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, MicroFOOT	Si8xxDB	SI	Yes	Yes	Yes	No	Add "-E1"suffix	Pure Matte Tin	N/A	N/A	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, PowerPAK MLF	SiCxxxxxxx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, FlatPAK	SiExxDF	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, PowerPAK 2 x 5	SiFxxDZ	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	83000 ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, TO-263	SUBxxxxxx-xx, SUMxxxxxx-xx	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	10	N/A	4.635ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, TO-252	SUDxxxxxx-xx, SUMxxxxxx-xx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	10	N/A	20.345ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, TO-220	SUPxxxxxx-xx, SUNxxxxxx-xx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	10	N/A	5.041ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, TO-251	SUJxxxxxx-xx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	10	N/A	20.345ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TMOS, TO-262	SUIxxxxxx-xx	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	10	N/A	4.635ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
JFET's																															
JFET, Hermetic	CRxxx, PACxx, DPACx, 2Nxxx, Uxxx, VCRxxx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Kovar	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
JFET, TO-92	Jxxx, JPADxx, PRxxxx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Alloy 42	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
JFET, SOT-23	SSTxxx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
JFET, SOIC	SSQ7PADxxx	SI	Yes	Yes	Yes	No	Add "-E3" or"-Ge3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
INTEGRATED CIRCUITS																															
LinIC, HV SOIC	DGxxxDY, DGxxxDW	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, HV MSOP	DGxxxDJ	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, HV TSSOP	DGxxxDQ	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, HV PLCC	DGxxxDN	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV miniDFN	DGxxxDN	SI	Yes	Yes	Yes	No	Add "-E4" or"-Ge4" suffix	Palladium Gold	Nickel	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV MSOP	DGxxxDQ	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV TSOP	DGxxxDV	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV SC-89	DGxxxDC	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV SC-70	DGxxxDL	SI	Yes	Yes	Yes	No	Add "-E3" or"-GE3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV QFN	DGxxxDN	SI	Yes	Yes	Yes	No	Add "-E4" suffix	Palladium Gold	Nickel	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV SOT-23	DGxxxDS	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
LinIC, LV MicroFOOT	DGxxxDB	SI	Yes	Yes	Yes	No	Add "-E1"suffix	Tin Silver Copper	None	N/A	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, SSOP	SiTRxxxQ, SiSYxxxQ	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, MSOP	SiSYxxxR, SiPxxxR1	SI	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS
PIC, PDIP	SiSYxxDJ	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, QSOP	SiPxxxQ	SI	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS
PIC, MLP	SiSFxxxDM, SiPxxxDM	SI	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS
PIC, PLCC	SiSYxxDN	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, PowerPAK	SiSYxxDLP, SiPxxxDLP, SiSFxxDMP, SiPxxxDMP, SiPxxDVP	SI	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS
PIC, TDFN	SiPxxxDNP	SI	Yes	Yes	Yes	No	Add "-GE4" suffix	Palladium Gold	Nickel	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, PR5CS75	SiPxxxDVP	SI	Yes	Yes	Yes	No	Add "-E3" or"-GE3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, TSSOP	SiHYxxxQ, SiPxxxxQGP	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, SC-70	SiPxxxDR	SI	Yes	Yes	No	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, SOPP	SiSHxxCS, SiPxxxCS	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, SOT-23	SiHYxxDT, SiPxxxDT	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, SOIC	SiSxxDW, SiSxxDY, SiPxxxDY	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	Yes	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
PIC, SOIC	SiCxxxCD	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
IPD, MLF	SiCxxxCD	SI	Yes	Yes	Yes	No	Add "-E3" or"-GE3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL3	Yes	260C	30	3	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HBREL	IC's, JFETS, MOSFETS	SI	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Kovar	No	MSL1	Yes	260C	30	3	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
JUNCTION PACK																															
Function PAK	PXxxxxxxxxxx	SI	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS	OBS
HIGH VOLTAGE MOSFETS																															
HVM	TO-220	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	5.041ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	TO-247	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	TO220 FULL PAK	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	5.041ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	TO-262	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	4.635ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	D2PAK	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	4.635ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	D-Pak	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	5.041ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	SuperJAT	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	SOT223	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	SOT-227	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	No	Yes	Yes	Yes	Yes	Yes	10	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HVM	SPAK	HVM	Yes	Yes	Yes	No	Add "-E3" suffix	Pure Matte Tin	None	Copper Clin 194	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes	Yes	10	N/A	5.041ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
SMALL SIGNAL PRODUCTS																															
Glass products	DO 35 (except 1N4148)	SSP	Yes	Yes	Yes	No	www.vishay.com	SnAg3,5	N/A	Cu, NiFe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
Glass products	DO 35 (1N4148)	SSP	Yes	Yes	Yes	No	www.vishay.com	Sn	N/A	Cu, Fe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
Glass products	DO41	SSP	Yes	Yes	Yes	No	www.vishay.com	SnAg3,5	N/A	Cu, NiFe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
Glass products	SOD 80, SOD80Q (except TLZ series)	SSP	Yes	Yes	Yes	No	www.vishay.com	SnAg2,5	N/A	Cu, NiFe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
Glass products	SOD80 TLZ series	SSP	Yes	Yes	No	No	www.vishay.com	SnAg2,5	N/A	Cu, NiFe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
Glass products	MicroMELF(except MCL series)	SSP	Yes	Yes	Yes	No	www.vishay.com	SnAg2,5	N/A	Cu, NiFe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
Glass products	MicroMELF(MCL series)	SSP	Yes	Yes	Yes	No	www.vishay.com	SnAg2,5	N/A	Cu, NiFe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
Glassbead Diodes	DOT 30B, SOD 57, SOD 64	SSP	Yes	Yes	Yes	No	www.vishay.com	SnAg3,5	N/A	Cu, Fe core	No	MSL1	Yes	260C	30	3	Yes	37	Yes	Yes	Yes	Yes			X							
Plastic products	DO 213 AB Plastic (GL 41xx)	SSP	Yes	Yes	No	No	www.vishay.com	Matte Sn	N/A	CuNi	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes			X							
Plastic products	SMA Zener (SML 47xx)	SSP	Yes	Yes	Yes	No	www.vishay.com	Matte Sn	N/A	Cu	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes	Yes			X							
Plastic products	SOT 143,TO 50, SOT 3xx, SOT490	SSP	Yes	Yes	Yes	No	www.vishay.com	Matte Sn	N/A	Cu	No	MSL1	Yes	260C	30	3	Yes		Yes	Yes	Yes											
Plastic products	SOD523	SSP	Yes	Yes	No	No	www.vishay.com	Matte Sn	N/A	NiFeAg	No	MSL1	Yes	260C	30	3	Yes		Yes	Yes	Yes											
Plastic products	SOD923	SSP	Yes	Yes	Yes	No	www.vishay.com	Matte Sn	N/A	NiFeAg	No	MSL1	Yes	260C	30	3	Yes		Yes	Yes	Yes											
Plastic products	LLP	SSP	Yes	Yes	Yes	No	www.vishay.com	NiPdAu	N/A	Cu alloy	No	MSL1	Yes	260C	30	3	Yes		Yes	Yes	Yes											
Plastic products	SOT 23-V, SOD 123-V,323-V (except Sw)	SSP	Yes	Yes	No	No	www.vishay.com	Matte Sn	N/A	FeNi42, Cu plated	No	MSL1	Yes	260C	30	3	Yes		Yes	Yes	Yes											
Plastic products	SOT 23-V, SOD 123-V,323-V (Sw)	SSP	Yes	Yes	Yes	No	www.vishay.com	Matte Sn	N/A	FeNi42, Cu plated	No	MSL1	Yes	260C	30	3	Yes		Yes	Yes	Yes											
Plastic products	DO219 (Except Sw GF SMF ECO and 2w SMF DO219 ECO)	SSP	Yes	Yes	No	No	www.vishay.com	Matte Sn	N/A	Cu alloy	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes			X									
Plastic products	DO219 (Sw GF SMF ECO and 2w SMF DO219 ECO)	SSP	Yes	Yes	No	No	www.vishay.com	Matte Sn	N/A	Cu alloy	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes			X									
Plastic products	DO 214-Zener	SSP	Yes	Yes	No	No	www.vishay.com	Matte Sn	N/A	Cu alloy	No	MSL1	Yes	260C	30	3	Yes	7a	Yes	Yes	Yes			X									
Plastic products	TO 220	SSP	Yes	Yes	No	No	www.vishay.com	Matte Sn	N/A	Cu	No	MSL1	Yes	260C	30	3	Yes		Yes	Yes	Yes											
MELF glass	DO 213 AB (glass)	SSP	Yes	Yes	Yes	No	www.vishay.com	SnAg2,5	N/A	Cu, NiFe core	No	MSL1	Yes	260C	30	3	Yes	7c	Yes	Yes	Yes	Yes			X							
OPTO																															
LED leaded	TLXXXXXX	OPTO	Yes	Yes	Yes	Y	www.vishay.com	Ag, Matte Sn, Hot Dipped SnCu	Ag/Ag /NO	Cu alloy, Fe alloy	No	N/A	Yes	N/A	N/A	N/A	Yes	No	Yes	Yes	Yes	Yes	N/A	None	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm		
LED SMD	TLMXXXXX	OPTO	Yes	Yes	Y	Y	www.vishay.com	Matte Sn, NiPdAu	None	Cu alloy	No	2, 2a	Yes	240, 260	0, 10	2	Yes	No	Yes	Yes	Yes	Yes	N/A	None	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm		
LED SMD	VLMxxxx	OPTO	Yes	Yes	Y	Y	www.vishay.com	Matte Sn	None	C

Vishay Lead-Free Family Summary Sheet - Active Components

Product Description			IPC/JEDEC Standard 609A - Pb Free "2nd-Level Interconnect" Status									Soldering & Reflow Profile					RoHS Status					China Pollution Act Information (SJ/T11363-2006) - China RoHS Status									PCN Status	
Technology/ Product Line	Product Family	Vishay Division	Pb-free Qualification Report Available (Yes/No)	Pb-free Samples Available (Yes/No)	Pb-free Mass Production (QY)	Pb&Pb-free Material Code Marking	How to Order Lead Free Part (Web)	Termination Plating Finish	Plating Underlayer	Termination Base Material/Alloy	Tin Lead (Sn/Pb) Termination available (Yes/No)	J-STD-020 Moisture Sensitivity Level Rating	Backward Compatibility	Peak Reflow Temperature (Deg C)	Time@ Peak Reflow Temperature (sec)	Maximum Number of Cycles Allowed @ Peak Reflow Temperature	RoHS Compliant (Yes/No/YesV6)	Exemptions Used (Exemption # only)	RoHS Qualification Report Available (Yes/No)	RoHS Compliant Samples Available (Yes/No)	RoHS Compliant Mass Production (QY)	China ROHS Compliant (YES/NO) 符合中国 RoHS (是/否)	EPUP (YEARS) 环保使用期限 (年)	Location of Hazardous Substance(s) 有毒有害物质所在部件	Pb 铅 X for C>MCV O for C<MCV 0,1 wt% (SJ/T 11363-2006)	Hg 汞 X for C>MCV O for C<MCV 0,1 wt% (SJ/T11363-2006)	Cd 镉 X for C>MCV O for C<MCV 0,01 wt% (SJ/T11363-2006)	Cr(VI) 六价铬 X for C>MCV O for C<MCV 0,1 wt% (SJ/T11363-2006)	PBB 多溴联苯 X for C>MCV O for C<MCV 0,1 wt% (SJ/T11363-2006)	PBDE 多溴二苯醚 X for C>MCV O for C<MCV 0,1 wt% (SJ/T11363-2006)	Product Change Notification Number / Rev#	Product Change Notification Date
BRIDGES	KBPC 6 / 8	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Terminals	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
BRIDGES	LPB - WAB	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Terminals	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
BRIDGES	LPB - 2KBB	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Terminals	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
BRIDGES	LPB - 2KBP	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Terminals	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
BRIDGES	LPB - KBPC1	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Terminals	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
BRIDGES	LPB - 2KBBR	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Terminals	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
BRIDGES	RBV (SIP)	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,7	N	Yes	Q3/2005	NO	N/A	Die, Solder	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	METAL DO-4	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	Nickel	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Glass metal seal	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	METAL DO-5	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	Nickel	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Glass metal seal	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	PLASTIC DO-3	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	Nickel	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	ALLOY STUDS - DO-8	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	6,7	N	Yes	Q3/2005	NO	N/A	Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	ALLOY STUDS - DO-9	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	6,7	N	Yes	Q3/2005	NO	N/A	Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	ROUND BRAZED STUDS - DO-8	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	6,7	N	Yes	Q3/2005	NO	N/A	Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	ROUND BRAZED STUDS - DO-9	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	6,7	N	Yes	Q3/2005	NO	N/A	Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	COMPRESSED STUDS (DO-35)	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	6	N	Yes	Q3/2005	NO	N/A	Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	COMPRESSED STUDS (DO-34)	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	6	N	Yes	Q3/2005	NO	N/A	Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	COMPRESSED STUDS (B-8)	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	6	N	Yes	Q3/2005	NO	N/A	Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	COMPRESSED STUDS (TO-63C)	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	COMPRESSED STUDS (TO-118)	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	SQUARE BRAZED STUDS (TO-94)	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	NA	N/A
DISCRETES	SQUARE BRAZED STUDS (TO-93)	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	TO-48	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	Nickel	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	TO-65	HPF	No	Yes	NA	e3	www.vishay.com	Sn 2-Sum	Nickel	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Glass metal seal cap	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
DISCRETES	MAT (B-47)	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,7	N	Yes	Q3/2005	NO	N/A	Solder	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	1 MODULES - DIODES	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,7	N	Yes	Q3/2005	NO	N/A	Solder	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	1 MODULES - SCRs	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,7	N	Yes	Q3/2005	NO	N/A	Solder	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	PACE - PAK	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,7	N	Yes	Q3/2005	NO	N/A	Solder	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	INT-A-PAK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	MAGN-A-PAK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	SUPER MAGN-A-PAK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	D-57 R	HPF	No	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5,6,7	N	Yes	Q3/2005	NO	N/A	Die, Solder, Terminals	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES	INT-A-PAK (DBC)	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HOCKEY - PUKS	A-PUK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HOCKEY - PUKS	E-PUK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HOCKEY - PUKS	B-PUK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HOCKEY - PUKS	G-PUK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
HOCKEY - PUKS	T-PUK	HPF	Yes	Yes	NA	e4	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q3/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
SMA	SMA	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
SMA	SMB	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
SMA	SMC	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
SMA	AXIAL DO-41	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	N/A	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
SMA	DO-201	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	N/A	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
TO-204	DO-204AR	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	N/A	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
SOD-SOT	SOD123	HPF	Yes	No	Q2/2007	e3	NA	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	NA	Yes	NO	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	2009-Rev-00	5-Oct-09
SOD-SOT	SOD323	HPF	Yes	No	Q2/2007	e3	NA	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	NA	Yes	NO	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	2009-Rev-00	5-Oct-09
SOD-SOT	SOT23	HPF	Yes	No	Q2/2007	e3	NA	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	NA	Yes	NO	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	2009-Rev-00	5-Oct-09
SOD-SOT	SOT323	HPF	Yes	No	Q2/2007	e3	NA	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	NA	Yes	NO	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	2009-Rev-00	5-Oct-09
SOT223	SOT223	HPF	Yes	No	Q2/2007	e3	NA	Sn	N/A	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	7a	Yes	NO	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	2009-Rev-00	5-Oct-09
DPAK	DPAK	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	Nickel	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
XIAN DISCRETES	POWIRTAB	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	Nickel	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	NA	Yes	Yes	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
XIAN DISCRETES	TO-220	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	Nickel	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	NA	Yes	Yes	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
XIAN DISCRETES	TO-247	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	Nickel	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	NA	Yes	Yes	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
XIAN DISCRETES	SUPER-247	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	Nickel	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	NA	Yes	Yes	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
XIAN DISCRETES	TO220-FULLPAK	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	Nickel	Cu alloy	No	N/A	Yes	NA	NA	NA	Yes	NA	Yes	Yes	Q2/2007	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
XIAN DISCRETES	SUPERMYRF	HPF	Yes	Yes	Q2/2007	e3	www.vishay.com	Sn	Nickel	Cu alloy	No	MSL1	Yes	260C	10	3	Yes	7a	Yes	Yes	Q2/2007	NO	N/A	Die Attach	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	SIP (six-pack inverter)	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	SIP (custom configurations)	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	MTP Half-bridge	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	MTP Full-bridge	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	MTP Chopper	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	MTP Customized configuration	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	IAP Half-bridge	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	IMP Single Switch	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	IMP Customized configuration	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	ECONO-2 6-pak Inverter	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	ECONO-2 4-Pak	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	ECONO-2 PIM (Bridge-Brake-Inverter)	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	ECONO-2 Customized configuration	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	SOT227 Single Switch	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES - IGBT	SOT227 Chopper	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	AAP Common cathode	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni Plated 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	AAP Common Anode	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni Plated 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	AAP Half Bridge	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni Plated 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	AAP Doubler	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni Plated 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	AAP Schottky	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni Plated 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	AAP Ultrafast diode	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni Plated 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	IAP Common Anode	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	IAP Common Cathode	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	IAP Half Bridge	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	IAP Doubler	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	IAP Ultrafast diode	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	MTA 3 Ph Bridges bridge	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	MTK AC switch	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	MTK 3 ph Bridges Semi/Total controlled	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	MTT 3phase diodes bridges	HPF	Yes	Yes	Q2/2005	e3	www.vishay.com	Sn	Ni 2-Sum	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	SOT227 single rectifier	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	SOT227 Ultrafast diodes	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	SOT227 Custom configurations	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	5	N	Yes	Q2/2005	NO	N/A	Die	X	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	TO244 Schottky	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	Cu	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	TO244 Ultrafast diodes	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	Cu	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A	0ppm	0ppm	0ppm	0ppm	0ppm	0ppm	N/A	N/A
MODULES Diodes -SCR	HALF-PAK Schottky	HPF	Yes	Yes	Q2/2005	NA	www.vishay.com	Ni 2-Sum	None	Cu	No	N/A	NA	N/A	N/A	NA	Yes	NA	N	Yes	Q2/2005	NO	N/A	N/A