



# Material Declaration Sheet

Vishay Inter-technology

Date 12/29/2020

## Part / Product Family Details

Part / Family Series	RoHS Compliance Status	RoHS Compliance Date Code dd-mmm-yyyy	Total product Weight (mg)	Value Range	3rd Party Lab ICP Test Report Available	Manufacturing Location	Number of Exemptions Used
TNPW0805 e3 series	YES	01-Jan-2007	4.8294483	All R value	Yes	Germany	0

## Technical Information

Terminal Plating / Grid Array Material	Terminal Base Alloy	JESD-97 Pb-Free Material Code Marking	J-STD-20D MSL Rating	Reflow Peak Process Body Temperature	Reflow Maximum number of cycles	Reflow Max.Time at Peak Temperature (sec)	Soldering Compatibility (SnPb/Pb-Free)
Pure matte tin - Ni barrier	Other	e3	Not Applicable	260 ° C	3	40	Backward & Forward

## Material Composition

Homogenous Material Name	Material Classification	Substance Name	CAS number	Weight of Substance (mg)	With respect to Homogenous Material		% with respect to Total Product Weight	RoHS Exemptions Used
					%	ppm		
Ceramic Substrate	Ceramics / glass	Aluminium Oxide	1344-28-1	4.126000	95.624	956244	85.43419	0 - None
		Silicon Dioxide	60676-86-0	0.126000	2.920	29202	2.60899	0 - None
		Glass former	System	0.062800	1.455	14555	1.30036	0 - None
EP-QD 25	Other duromers			0.144000				
		Epoxy resin	25068-38-6	0.074880	52.000	520000	1.55049	0 - None
		Pigment	68187-11-1	0.034560	24.000	240000	0.71561	0 - None
Nickel alloy	Nickel alloys	Quartz	14808-60-7	0.034560	24.000	240000	0.71561	0 - None
				0.000011				
		Chromium	7440-47-3	0.000004	40.000	400000	0.00009	0 - None
Silver inner electrical contact	Other special metals	Nickel	7440-02-0	0.000006	60.000	600000	0.00013	0 - None
				0.114700				
		Palladium	7440-05-3	0.014060	12.258	122581	0.29113	0 - None
Tin outer electrical contact	Other special metals	Silver	7440-22-4	0.091510	79.782	797820	1.89483	0 - None
		Glass	System	0.009130	7.960	79599	0.18905	0 - None
				0.255938				
		Chromium	7440-47-3	0.000003	0.001	13	0.00007	0 - None
		Copper	7440-50-8	0.000021	0.008	80	0.00043	0 - None
		Nickel	7440-02-0	0.095714	37.397	373973	1.98188	0 - None
		Tin	7440-31-5	0.160200	62.593	625933	3.31715	0 - None

**EU-RoHS Directive-2011/65/EU** MCV of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and MCV of 0.01% by mass cadmium

**Exemption Used** NONE

**Note :-** (i) All information is based on data received from our vendors & subjected to change without prior notice.  
(ii) Substance weight are derived from MSDS.

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