

Description

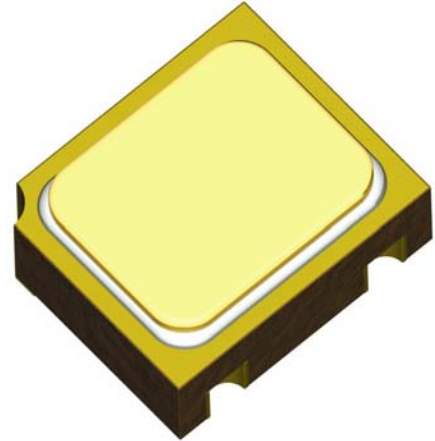
SEMICOA offers:

- Screening and processing per MIL-PRF-19500 Appendix E
- JAN level (2N4261UBJ)
- JANTX level (2N4261UBJX)
- JANTXV level (2N4261UBJV)
- JANS level (2N4261UBJS)
- QCI to the applicable level
- 100% die visual inspection per MIL-STD-750 method 2072 for JANTXV and JANS
- Radiation testing (total dose) upon request

Please contact SEMICOA for special configurations
www.SEMICOA.com or (714) 979-1900

Applications

- General purpose switching transistor
- Low power
- PNP silicon transistor



Features

- Hermetically sealed Cersot ceramic
- Also available in chip configuration
- Chip geometry 0014
- Reference document: MIL-PRF-19500/511

Benefits

- Qualification Levels: JAN, JANTX, JANTXV and JANS
- Radiation testing available

Absolute Maximum Ratings		T _C = 25°C unless otherwise specified	
Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage	V _{CEO}	15	Volts
Collector-Base Voltage	V _{CBO}	15	Volts
Emitter-Base Voltage	V _{EBO}	4.5	Volts
Collector Current, Continuous	I _C	30	mA
Power Dissipation, T _A = 25°C Derate linearly above 25°C	P _T	200 1.14	mW mW/°C
Thermal Resistance	R _{θJA}	0.86	°C/mW
Operating Junction Temperature Storage Temperature	T _J T _{STG}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS

characteristics specified at $T_A = 25^\circ\text{C}$

Off Characteristics						
Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}$	15			Volts
Collector-Base Cutoff Current	I_{CBO}	$V_{CB} = 15\text{ Volts}$			10	μA
Collector-Emitter Cutoff Current	I_{CEX1}	$V_{CE} = 10\text{ Volts}, V_{BE} = 0.4\text{ Volts}$			50	nA
	I_{CEX2}	$V_{CE} = 10\text{ Volts}, V_{BE} = 2\text{ Volts}$			5	nA
	I_{CEX3}	$V_{CE} = 10\text{ Volts}, V_{BE} = 2\text{ Volts}, T_A = 150^\circ\text{C}$			5	μA
Emitter-Base Cutoff Current	I_{EBX}	$V_{BE} = 2\text{ Volts}, V_{CE} = 10\text{ Volts}$			5	nA
Emitter-Base Cutoff Current	I_{EBO}	$V_{EB} = 4.5\text{ Volts}$			10	μA

On Characteristics			Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$			
Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
DC Current Gain	h_{FE1}	$I_C = 1\text{ mA}, V_{CE} = 1\text{ Volts}$	25			
	h_{FE2}	$I_C = 10\text{ mA}, V_{CE} = 1\text{ Volts}$	30		150	
	h_{FE3}	$I_C = 30\text{ mA}, V_{CE} = 1\text{ Volts}$	20			
	h_{FE4}	$I_C = 10\text{ mA}, V_{CE} = 1\text{ Volts}, T_A = -55^\circ\text{C}$	15			
Base-Emitter Voltage	V_{BE1}	$V_{CE} = 1\text{ Volts}, I_C = 1\text{ mA}$			0.8	Volts
	V_{BE2}	$V_{CE} = 1\text{ Volts}, I_C = 10\text{ mA}$			1.0	
Collector-Emitter Saturation Voltage	V_{CEsat1}	$I_C = 1\text{ mA}, I_B = 0.1\text{ mA}$			0.15	Volts
	V_{CEsat2}	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$			0.35	

Dynamic Characteristics						
Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Magnitude – Common Emitter, Short Circuit Forward Current Transfer Ratio	$ h_{FE1} $	$f = 100\text{ MHz}, V_{CE} = 4\text{ Volts}, I_C = 5\text{ mA}$	15			
	$ h_{FE2} $	$V_{CE} = 10\text{ Volts}, I_C = 10\text{ mA}$	20			
Open Circuit Output Capacitance	C_{OBO}	$V_{CB} = 4\text{ Volts}, I_E = 0\text{ mA}, 100\text{ kHz} < f < 1\text{ MHz}$			2.5	pF
Open Circuit Input Capacitance	C_{IBO}	$V_{EB} = 0.5\text{ Volts}, I_C = 0\text{ mA}, 100\text{ kHz} < f < 1\text{ MHz}$			2.5	pF
Collector Base time constant	$r_b' C_{C1}$	$V_{CE} = 4\text{ Volts}, f = 31.8\text{ MHz}, I_C = 5\text{ mA}$			60	ps
	$r_b' C_{C2}$	$I_C = 10\text{ mA}$			50	

Switching Characteristics						
Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Saturated Turn-On Time	t_{ON}	$V_{CC} = 17\text{ Volts}, I_C = 10\text{ mA}$			2.5	ns
Saturated Turn-Off Time	t_{OFF}	$V_{CC} = 17\text{ Volts}, I_C = 10\text{ mA}$			3.5	ns