



THE DATASHEET OF SMBJP6KE300AL-TP



Features

- For Surface Mount Applications in Order to Optimize Board Space
- Fast Response Time: Typical Less Than 1.0ps From 0 Volts to V_B Minimum
- Low Inductance
- Excellent Clamping Capability
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Mechanical Data

- Terminals: Solderable Per MIL-STD-750, Method 2026

Maximum Ratings

- Operating Junction Temperature Range: -55°C to $+175^{\circ}\text{C}$
- Storage Temperature Range: -55°C to $+175^{\circ}\text{C}$
- Thermal Resistance : $20^{\circ}\text{C}/\text{W}$ Junction to Lead
- Thermal Resistance : $25^{\circ}\text{C}/\text{W}$ Junction to Case

Electrical Characteristics @ 25°C Unless Otherwise Specified

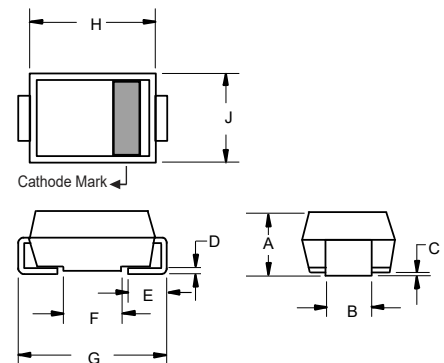
Peak Pulse Power Surge Current on 10/1000 μs Waveform	I_{PP}	See the Table	Note 3
Peak Pulse Power Dissipation	P_{PP}	600W	Note 3

Notes:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^{\circ}\text{C}$ per Fig.2.

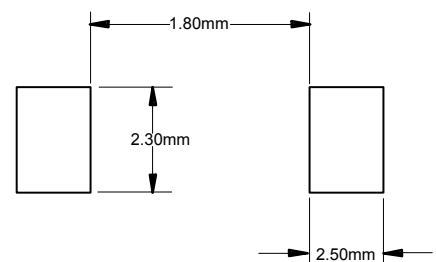
600 Watt TVS 250 to 400 Volts

SMB (DO-214AA) (LEAD FRAME)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC PART NUMBER	REVERSE STAND-OFF VOLTAGE V_{WM}	BREAKDOWN VOLTAGE $V_{(BR)} @ I_T$ (VOLTS)			MAXIMUM CLAMPING VOLTAGE@ I_{PP}	PEAK PULSE CURRENT I_{PP}	MAXIMUM REVERSE LEAKAGE @ V_{WM} I_D	MARKING CODE
	VOLTS	MIN	MAX	I_T (mA)	VOLTS	(AMPS)	(μ A)	
SMBJP6KE250AL	214.00	237.00	263.00	1	344.0	1.9	1	250AL
SMBJP6KE300AL	256.00	285.00	315.00	1	414.0	1.5	1	300AL
SMBJP6KE350AL	300.00	332.00	368.00	1	482.0	1.3	1	350AL
SMBJP6KE400AL	342.00	380.00	420.00	1	548.0	1.1	1	400AL

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

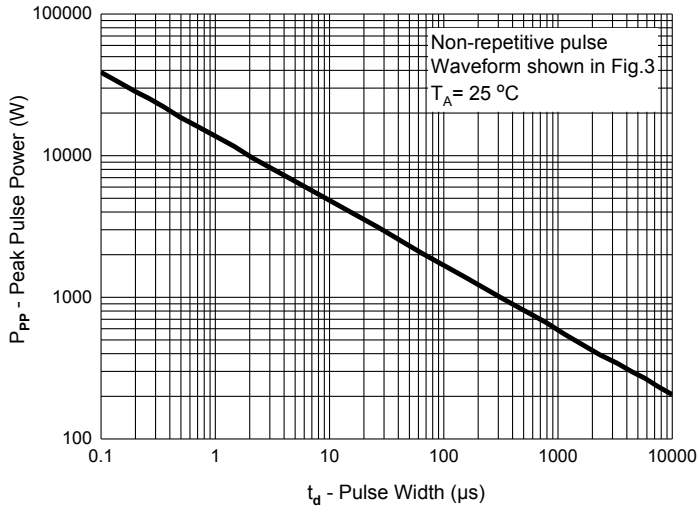


Fig. 2 - Pulse Derating Curve

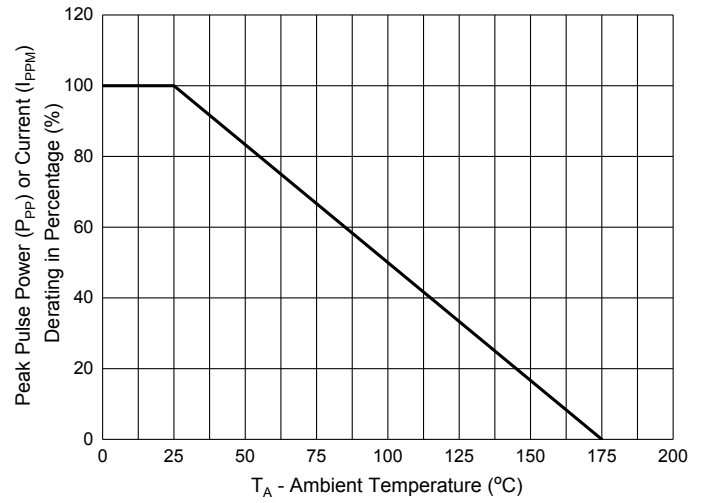
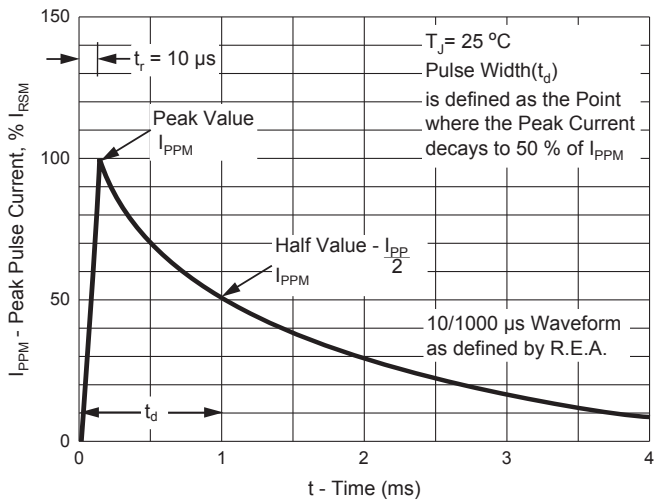


Fig. 3 - Pulse Waveform



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

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