

SMBJP6KE250AL THRU SMBJP6KE400AL

Features

- Halogen free available upon request by adding suffix "-HF"
- For surface mount applications in order to optimize board space
- Lead Free Finish/RoHs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Fast response time: typical less than 1.0ps from 0 volts to V_{BR} minimum
- Low inductance
- Excellent clamping capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Mechanical Data

- Terminals: solderable per MIL-STD-750, Method 2026

Maximum Ratings @ 25°C Unless Otherwise Specified

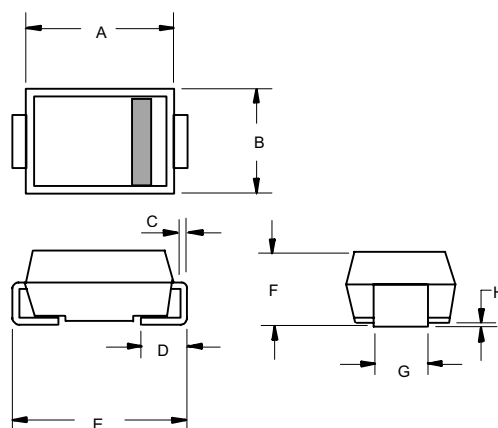
Peak Pulse Current on 10/1000us waveform	I_{PP}	See Table 1	Note: 2
Peak Pulse Power Dissipation	P_{PP}	600W	Note: 2
Operation and Storage Temperature Range	T_J, T_{STG}	-55°C to +175°C	
Thermal Resistance	R_{thJC} R_{thJL}	25 °C/W 20°C/W	

NOTES:

1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.2.

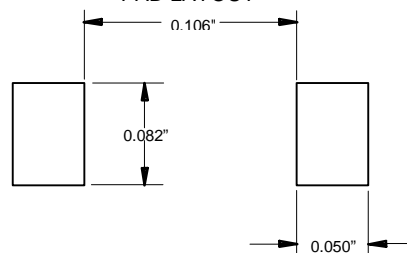
Transient Voltage Suppressor 250 to 400 Volts 600 Watt

DO-214AA (SMBJ) (LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.160	.185	4.06	4.70	
B	.130	.155	3.30	3.94	
C	.006	.012	0.15	0.31	
D	.030	.060	0.76	1.52	
E	.200	.220	5.08	5.59	
F	.079	.096	2.00	2.44	
G	.075	.087	1.91	2.21	
H	.002	.008	0.05	0.203	

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	REVERSE STAND-OFF VOLTAGE V_{WM} (VOLTS)	BREAKDOWN VOLTAGE $V_{(BR)}$ @ I_T (VOLTS)			MAXIMUM CLAMPING VOLTAGE @ I_{PP} (VOLTS)	PEAK PULSE CURRENT I_{PP} (AMPS)	MAXIMUM REVERSE LEAKAGE @ V_{WM} I_D (μA)	MARKING CODE
		MIN	MAX	I_T (mA)				
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

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – Peak Pulse Power Rating Curve

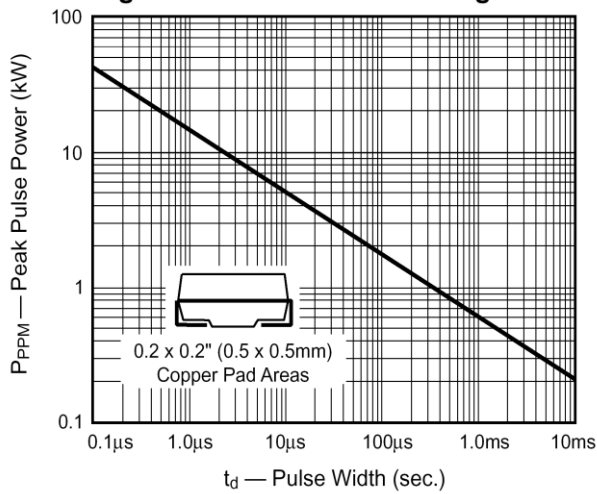


Fig. 2-PULSE RATING CURVE

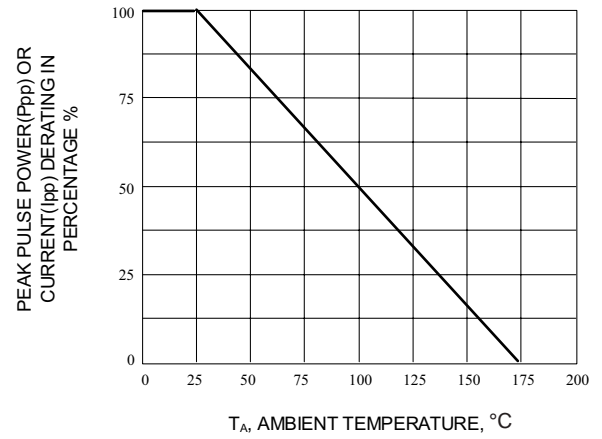
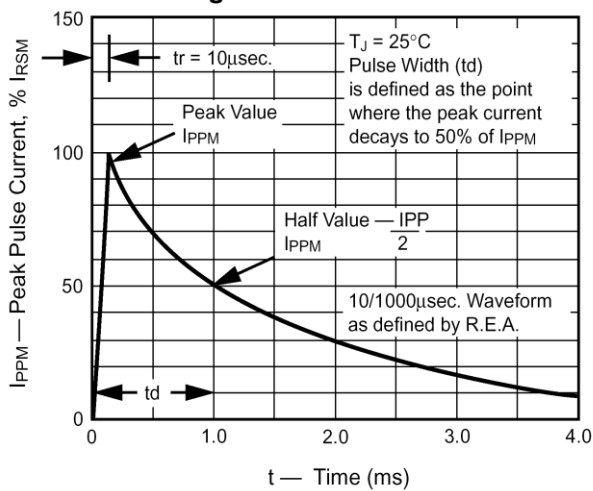


Fig. 3 – Pulse Waveform



Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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