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DESCRIPTION

SMBJ surface mount package is utilized where power and space is a requirement. Designed for effective protection of power bus lines from voltage spikes originating from ESD, line noise (EFT), and induced lightning defined by IEC 1000-4-2, 1000-4-4, and 1000-4-5 respectively. Advanced technology provides lowest clamping voltage with surface mount packaging minimizing parasitic inductance.

FEATURES

- 2000 watts Peak Pulse Power 8/20 μ s
- For surface Mount Applications (flat handling surface for accurate placement).
- Voltage and reverse leakage lowest available
- High surge capacity provides transient protection for low voltage circuits
- UL 94V-0 Flammability Classification

MECHANICAL CHARACTERISTICS

- CASE: DO-214AA (SMBJ) outline
- Terminals solderable per MIL-STD-750, Method 2026
- Maximum temperature for soldering: 260°C for 10 seconds maximum
- LEAD MATERIAL: Copper
- LEAD FINISH: Tin plate
- POLARITY: Cathode end is banded
- WEIGHT: 0.2 grams
- MOUNTING POSITION: Any

MAXIMUM RATINGS

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Steady state Power Dissipation: 3.0 watt @ $T_L \leq 75^\circ\text{C}$
- Repetition rate (duty cycle): .01%
- Surge Power: 300 watts @ 10/1000 μ s or 2000 watts @ 8/20 μ s
- I_{PP} and V_C below are @ 8/20 μ s

Electrical Characteristics @ 25°C unless otherwise specified

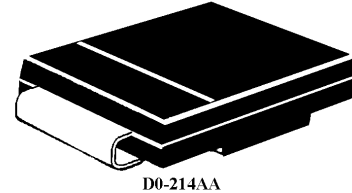
TYPE SMBJ	$V_{(BR)}$ MIN VOLTS	$I_{(BR)}$ mA	V_{WM} VOLTS	I_P μ A	I_{PP} A	V_C VOLTS	$\alpha_{V(BR)}$ %/°C
2K3.0	4.3	50	3.0	1500	10	5.4	+0/-0.05
2K3.3	4.6	50	3.3	700	10	5.8	\pm .025
2K4.0	5.0	50	4.0	400	10	6.3	\pm .030
2K4.5	5.4	50	4.5	50	10	6.6	\pm .040
2K5.0	5.9	50	5.0	5	10	7.6	\pm .050

SMBJ2K3.0

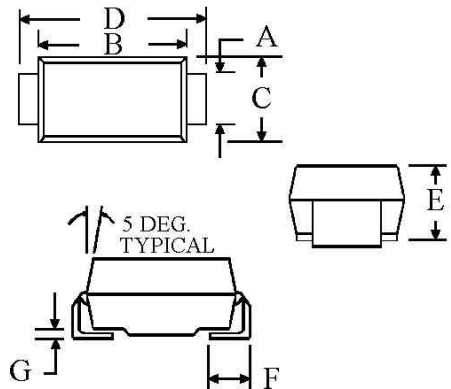
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SMBJ2K5.0

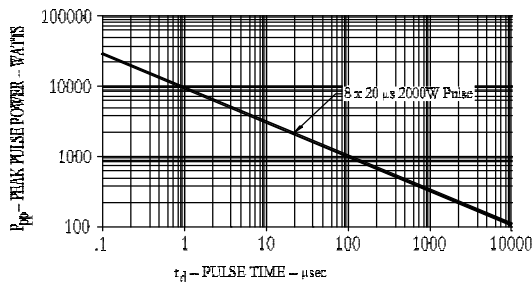
TRANSIENT VOLTAGE SUPPRESSOR



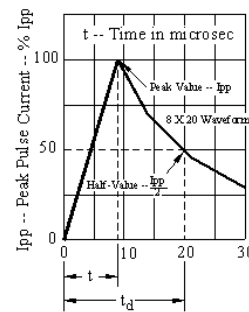
DO-214AA



DIMENSIONS IN INCHES						
	A	B	C	D	E	G
MIN	.077	.160	.130	.205	.075	.030
MAX	.083	.180	.155	.220	.095	.008
DIMENSIONS IN MILLIMETERS						
	A	B	C	D	E	G
MIN	1.96	4.06	3.30	5.21	1.90	0.760
MAX	2.10	4.57	3.94	5.59	2.41	1.520



Peak Pulse Power vs. Pulse Time



8X20 Pulse Wave Form