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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  $\mu$ 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**

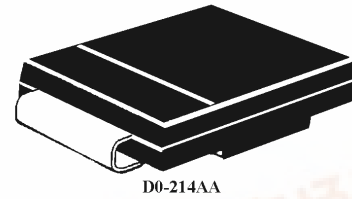
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Steady state Power Dissipation: 3.0 watt @  $T_L \leq 75^\circ\text{C}$
- Repetition rate (duty cycle): .01%
- Surge Power: 300 watts @ 10/1000  $\mu$ s or 2000 watts @ 8/20  $\mu$ s
- $I_{PP}$  and  $V_C$  below are @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

**Electrical Characteristics @ 25°C unless otherwise specified**

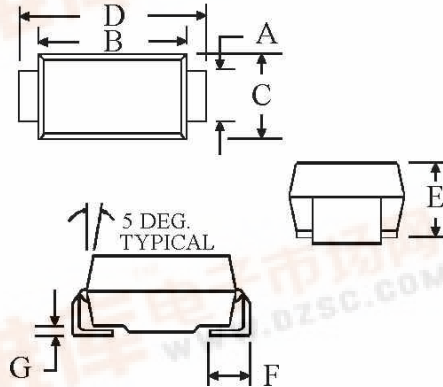
TYPE SMBJ	$V_{(BR)}$ MIN VOLTS	$I_{(BR)}$ mA	$V_{WM}$ VOLTS	$I_P$ $\mu$ A	$I_{PP}$ A	$V_C$ VOLTS	$\alpha(V_{BR})$ %/°C
2K3.0	4.3	50	3.0	1500	10	5.4	+0/- .05
2K3.3	4.6	50	3.3	700	10	5.8	$\pm$ .025
2K4.0	5.0	50	4.0	400	10	6.3	$\pm$ .030
2K4.5	5.4	50	4.5	50	10	6.6	$\pm$ .040
2K5.0	5.9	50	5.0	5	10	7.6	$\pm$ .050

**SMBJ2K3.0**  
thru  
**SMBJ2K5.0**

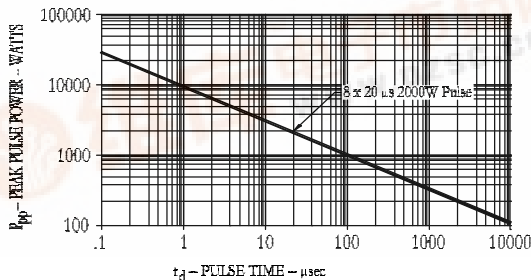
**TRANSIENT VOLTAGE SUPPRESSOR**



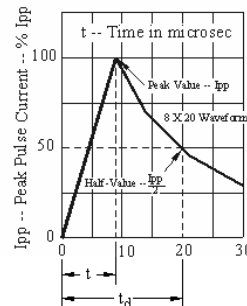
DO-214AA



DIMENSIONS IN INCHES							
	A	B	C	D	E	F	G
MIN	.077	.160	.130	.205	.075	.030	.004
MAX	.083	.180	.155	.220	.095	.060	.008
DIMENSIONS IN MILLIMETERS							
MIN	1.96	4.06	3.30	5.21	1.90	0.760	.101
MAX	2.10	4.57	3.94	5.59	2.41	1.520	.202



Peak Pulse Power vs. Pulse Time



8X20 Pulse Wave Form

