

ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

DEVICE TYPE	DEVICE MARKING CODE	BREAKDOWN VOLTAGE V _{BR} AT I _T		MAXIMUM REVERSE LEAKAGE CURRENT I _R AT V _{WM}		MAXIMUM CLAMPING VOLTAGE AT V _C AT I _{PPM}		MAXIMUM CLAMPING VOLTAGE AT V _C AT I _{PPM}		TYPICAL TEMP. COEFFICIENT OF V _{BR}	TYPICAL JUNCTION CAPACITANCE C _J AT 0 V
		MIN.		MAX.		10/1000 μs		8/20 μs			1 MHz
		V	mA	μA	V	V	A	V	A	(10 ⁻⁴ /°C)	pF
MSP3V3	KC	4.1	1.0	200	3.3	7.3	13.7	11.0	75	- 5.3	850

THERMAL CHARACTERISTICS ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	125 30	$^{\circ}\text{C/W}$

Note:

(1) Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 6.0 x 6.0 mm copper pad areas. $R_{\theta JL}$ is measured at the terminal of cathode band.

IMMUNITY TO STATIC ELECTRICAL DISCHARGE TO THE FOLLOWING STANDARDS($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

STANDARD	TEST TYPE	TEST CONDITIONS	SYMBOL	CLASS	VALUE
AEC-Q101-001	Human body model (contact mode)	$C = 100\text{ pF}$, $R = 1.5\text{ k}\Omega$	V_C	H3B	> 8 kV
IEC-61000-4-2 ⁽²⁾	Human body model (air discharge mode) ⁽¹⁾	$C = 150\text{ pF}$, $R = 150\text{ }\Omega$		4	> 15 kV

Notes:

(1) Immunity to IEC-61000-4-2 air discharge mode has a typical performance > 30 kV

(2) System ESD standard

ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
MSP3V3-E3/89A	0.006	89A	4500	7" diameter plastic tape and reel
MSP3V3HE3/89A ⁽¹⁾	0.006	89A	4500	7" diameter plastic tape and reel
MSP3V3-M3/89A	0.006	89A	4500	7" diameter plastic tape and reel
MSP3V3HM3/89A ⁽¹⁾	0.006	89A	4500	7" diameter plastic tape and reel

Note:

(1) High reliability/automotive grade (AEC-Q101 qualified)

RATINGS AND CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

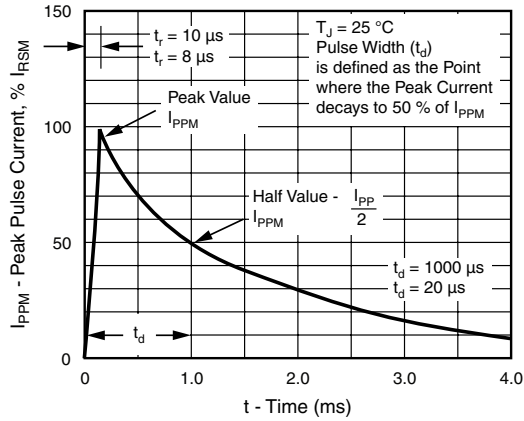


Figure 1. Pulse Waveform

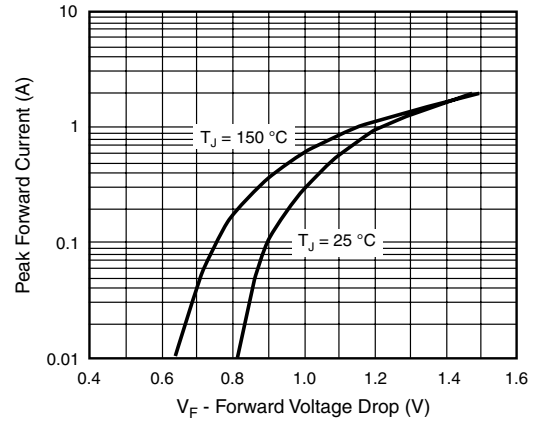


Figure 4. Typical Peak Forward Voltage Drop vs. Peak Forward Current

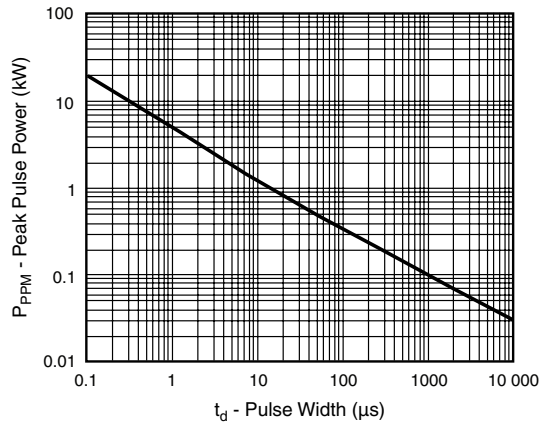


Figure 2. Peak Pulse Power Rating Curve

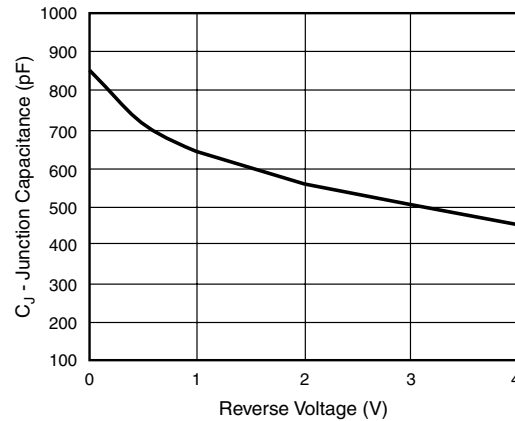


Figure 5. Typical Junction Capacitance

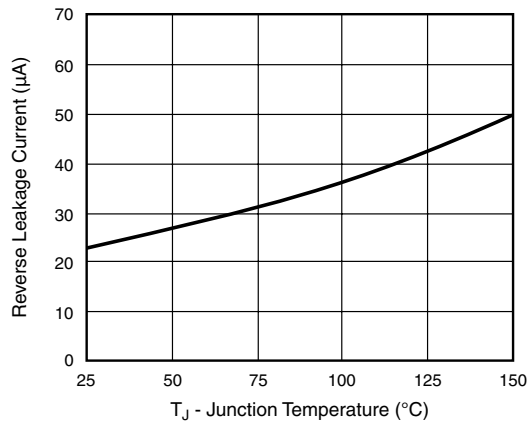


Figure 3. Relative Variation of Leakage Current vs. Junction Temperature

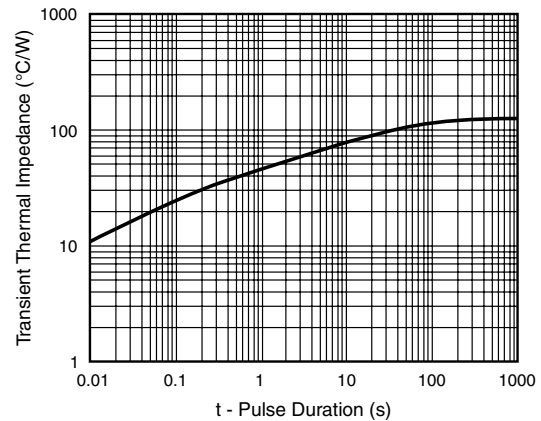
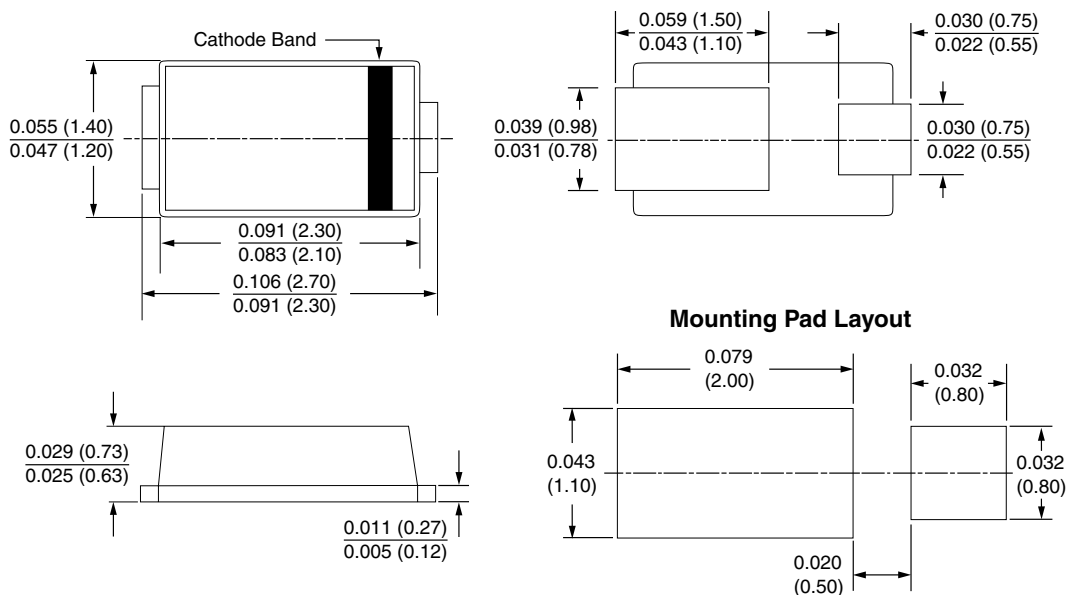


Figure 6. Typical Transient Thermal Impedance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)**MicroSMP**



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