

1.0Amp General Purpose Rectifiers

FEATURES

- For surface mounted application
- Low forward voltage drop
- High current capability
- Easy pick and place
- High surge current capability
- Plastic material used carries Underwriters
- Laboratory Classification 94V-0



DO-214AC (SMA)

MECHANICAL DATA

- Case: DO-214AC (SMA) Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 0.064 gram (approx.)



Cathode

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	M1	M2	M3	M4	M5	M6	M7	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	$I_{(AV)}$	1							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 200							μA
Typical Junction Capacitance 1)	C_J	15							pF
Maximum Thermal Resistance 2)	$R_{\theta JL}$	30							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_{J, TS}$	- 50 to + 150							$^\circ\text{C}$

Note 1. Measured at 1 MHz and Applied $V_r=4.0$ volts

2. 8.0mm^2 (.013mm thick) land areas

1.0Amp General Purpose Rectifiers

Typical Characteristics

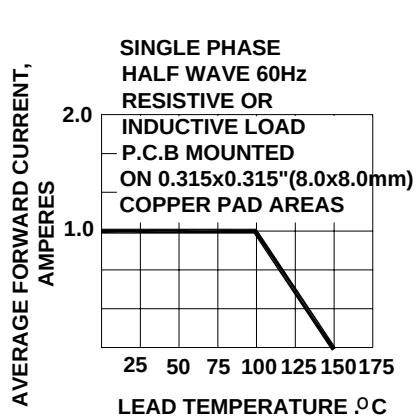


Fig. 1-FORWARD CURRENT DERATING CURVE

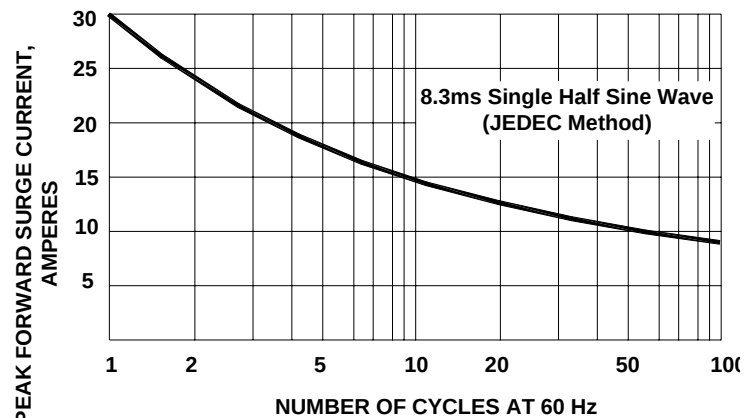


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

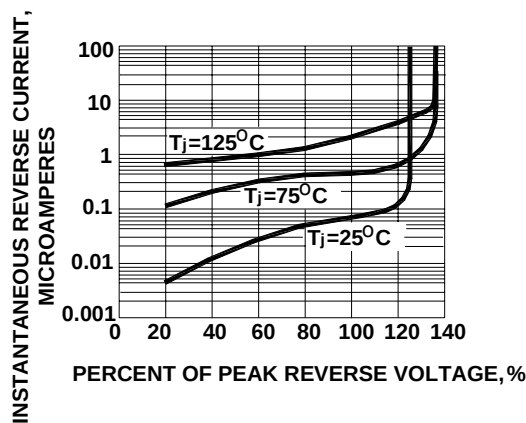


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

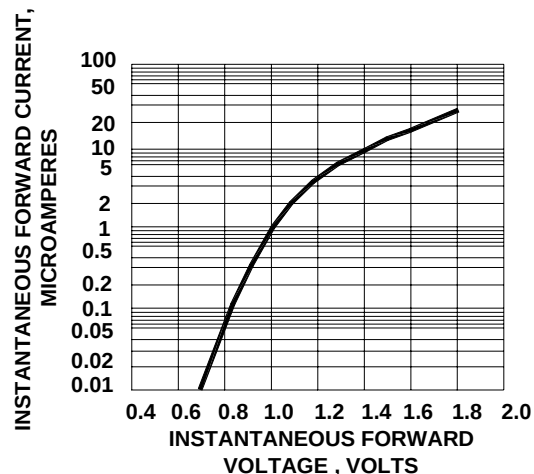


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

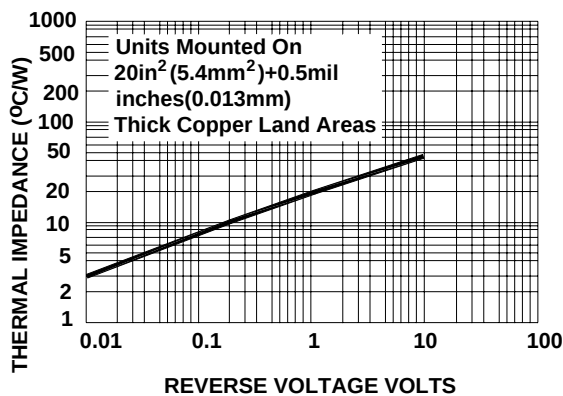


Fig. 5-TRANSIENT THERMAL IMPEDANCE

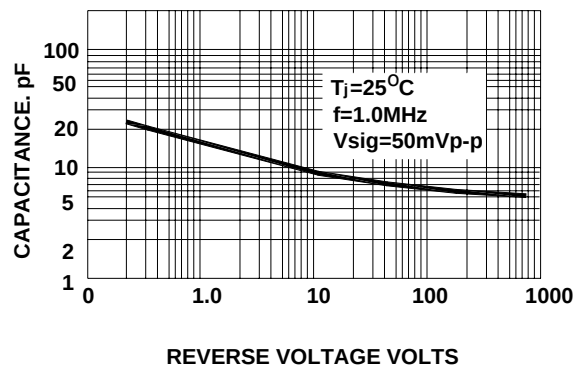
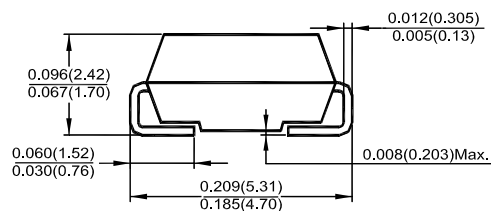
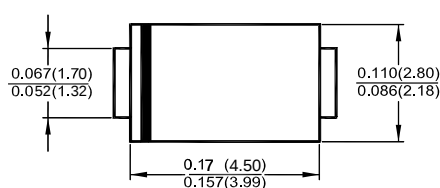


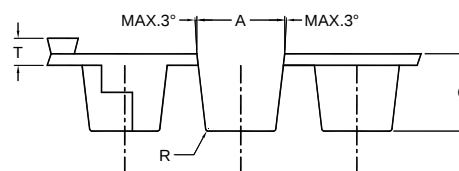
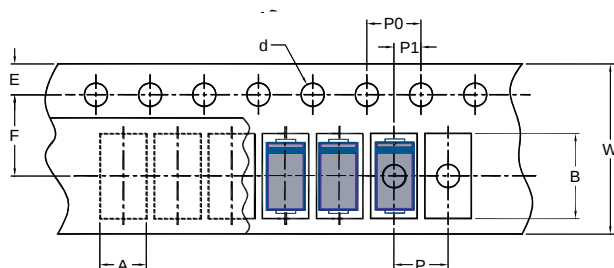
Fig. 6-TYPICAL JUNCTION CAPACITANCE

SMA Package Outline Dimensions



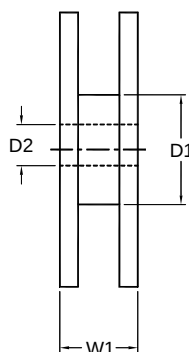
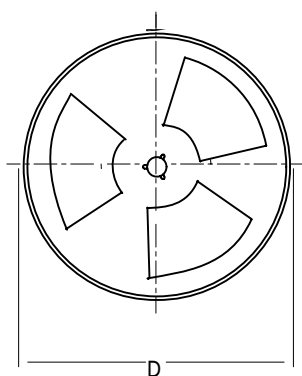
(DIMENSIONS ARE IN MILLIMETER)

SMA Embossed Carrier Tape



DIMENSIONS ARE IN MILLIMETER											
TYPE	A	B	C	d	E	F	P	P0	P1	T	W
SMA	3.0	5.4	2.4	1.5	1.5	5.65	4	4	2	0.3	12
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.1	±0.1	±0.1	±0.05	±0.2

SMA Reel



DIMENSIONS ARE IN MILLIMETER				
REEL OPTION	D	D1	D2	W1
7" DIA	178	50 min.	13	16.8
TOLERANCE	±2	±0.1	±0.5	±2