

FEATURES

- Glass Passivated Die Construction
- Super-Fast Recovery Time For High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automated Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0



DO-214AC (SMA)

MECHANICAL DATA

- Case: DO-214AC Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 70mg (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	US1A	US1B	US1D	US1G	US1J	US1K	US1M	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 _A =75 °C	I _{F(AV)}	1.0							A	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC)	I _{FSM}	30.0							A	
Maximum Instantaneous Forward Voltage at 1 A		1.0			1.3	1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25 °C T _A =100 °C	I _R	5.0 50.0							μA
Maximum reverse recovery time (NOTE1)		t _{rr}	50			75			nS	
Typical Junction Capacitance (NOTE2)		C _J	15.0							pF
Maximum Thermal Resistance (NOTE3)		R _{θJL}	50.0							°C/W
Operating and Storage Temperature Range		T _J , T _S	-65 to + 150							°C

Note: 1.Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

Typical CharacteristicsAVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

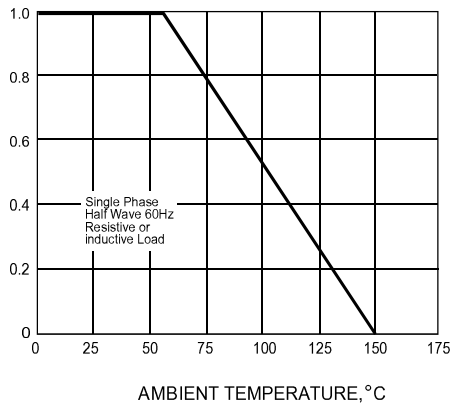
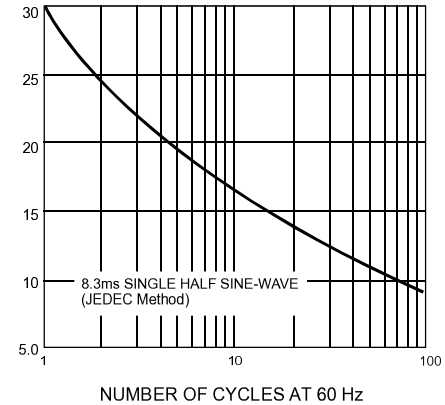
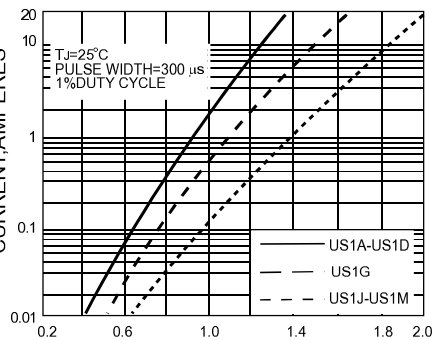
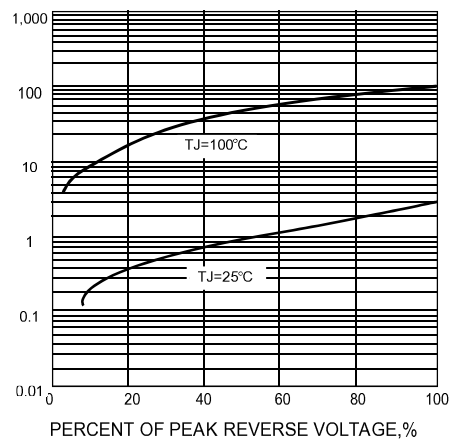
PEAK FORWARD SURGE CURRENT,
AMPERESFIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD
SURGE CURRENTINSTANTANEOUS FORWARD
CURRENT, AMPERESFIG. 3-TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICSINSTANTANEOUS FORWARD VOLTAGE,
VOLTSINSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

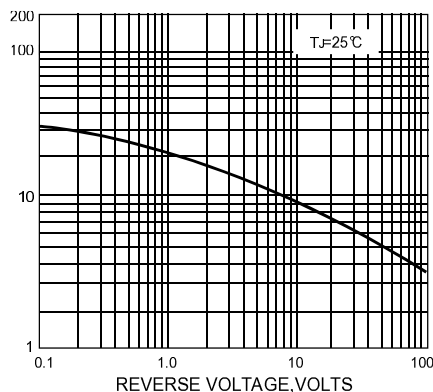
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF PEAK REVERSE VOLTAGE, %

JUNCTION CAPACITANCE, pF

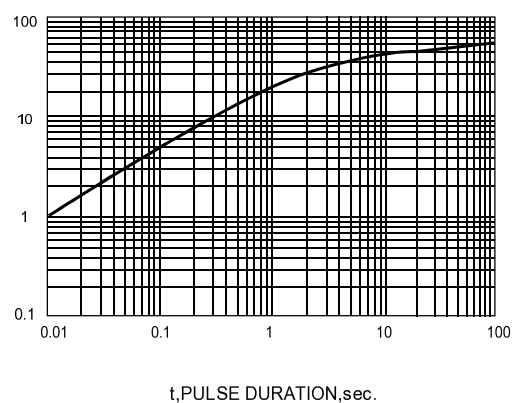
FIG. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLTS

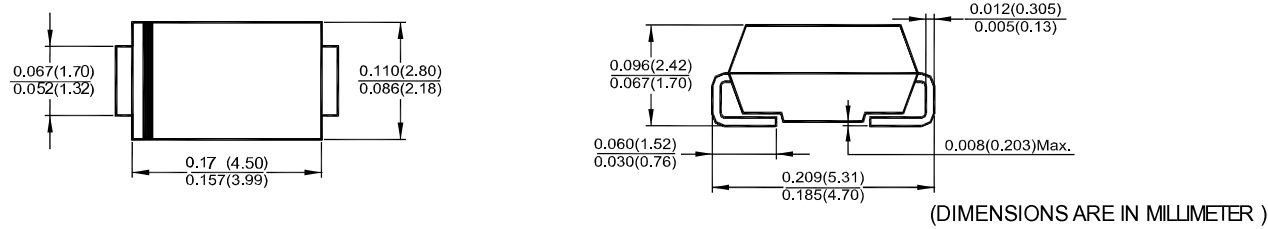
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

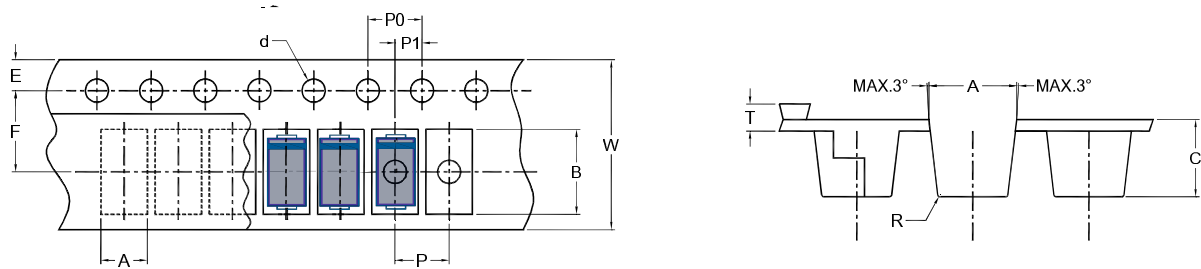


t, PULSE DURATION, sec.

SMA Package Outline Dimensions

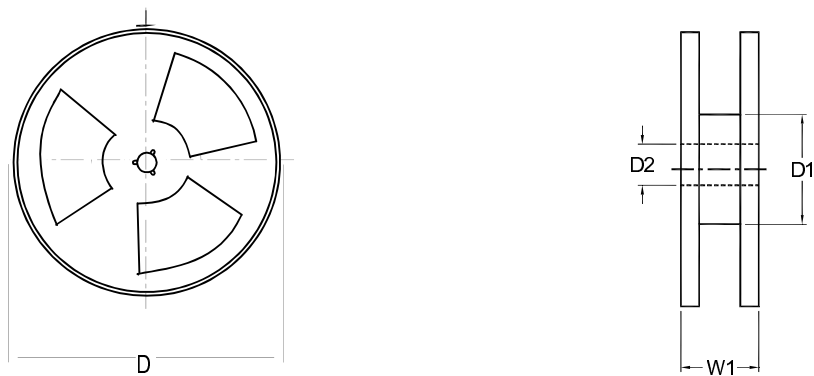


SMA Embossed Carrier Tape



	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