MOSPEC

RS1A THRU RS1M

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

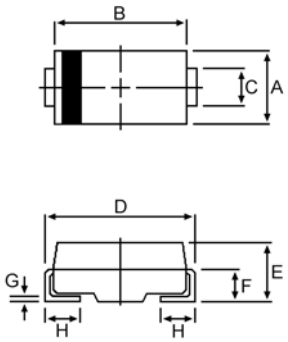
VOLTAGE RANGE 50 to 1000 Volts

CURRENT 1 Ampere

FEATURES

- ＊For surface mounted applications in order optimize board space
- ＊Low profile package
- ＊Built-in strain relief, ideal for automated placement
- ＊Fast switching speed
- ＊Low forward voltage droppeed
- ＊Glass passivated chip junction
- ＊High Temperature soldering guaranteed: 250°C/10 seconds.

SMA(DO-204AC)



DIM	MILLIMETERS	
	MIN	MAX
A	2.54	2.79
B	3.99	4.50
C	1.25	1.65
D	4.91	5.30
E	1.90	2.50
F		1.30
G		0.30
H	0.76	1.50

MECHANICAL DATA

- ＊Case：JEDED SMA(DO-214AC) molded plastic body
- ＊Epoxy: UL94V-O rate flame retardant
- ＊Terminals：Plated axial lead, Solderable Per MIL-STD-750 Method 2026
- ＊Polarity：Color band denotes cathode end
- ＊Mounting position: Any
- ＊Weight：0.002 ounce, 0.064 grams (approx)

＊*In compliance with EU RoHs 2002/95/EC directives*

The marking is indicated by part no. with “M”.

ex: RS1AM ~RS1MM

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectifier Forward Current Per Leg T_C=75℃	$I_{F(AV)}$	1.0							A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage (I_F =1.0 Amp T_C = 25℃)	V_F	1.3							V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	5.0 100							uA
Reverse Recovery Time (Note 1)	T_{rr}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C_j	10					7.0		pF
Typical Thermal Resistance(Note 3)	$R_{\Theta jA}$ $R_{\Theta jc}$	32 105							°C/W
Operating and Storage Temperature Range	T_{stg}	-55 to +150							℃

NOTES:

1. Test conditions: I_F = 0.5 A, I_R =1.0 , I_{RR}=0.25 A
2. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
3. Thermal Resistance from Junction to Ambient and from junction to lead mounted on 0.2×0.2”(5.0×5.0 mm)copper pad area.

RS1A thru RS1M

FIG-1 FORWARD CURRENT DERATING CURVE

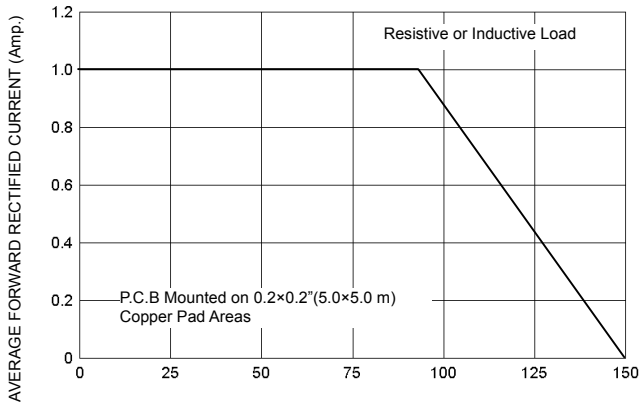


FIG-2 PEAK FORWARD SURGE CURRENT

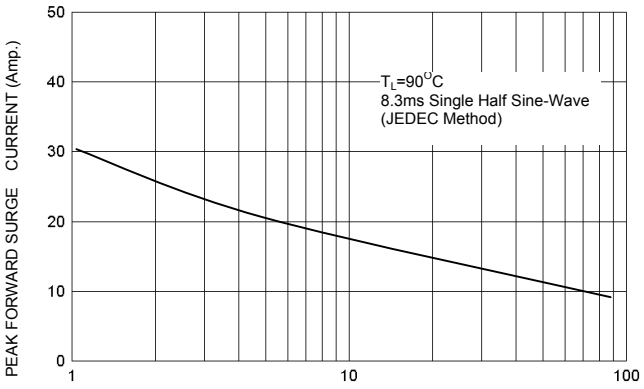


FIG-3 TYPICAL FORWARD CHARACTERISITICS

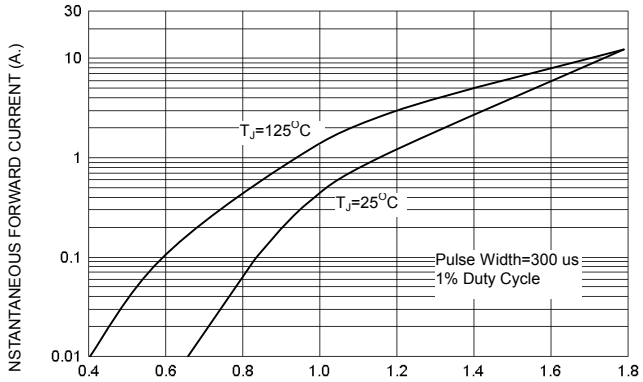


FIG-3 TYPICAL REVERSE CHARACTERISTICS

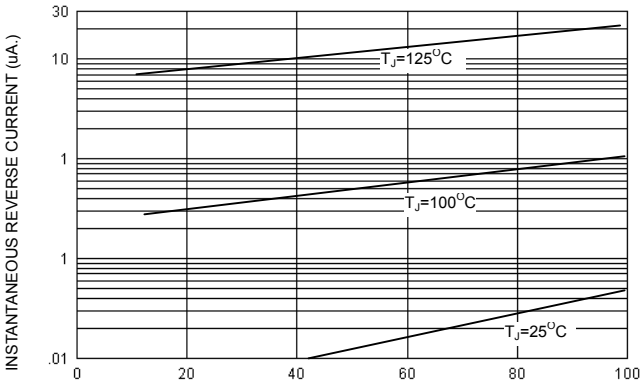


FIG-5 TYPICAL JUNCTION CAPAITANCE

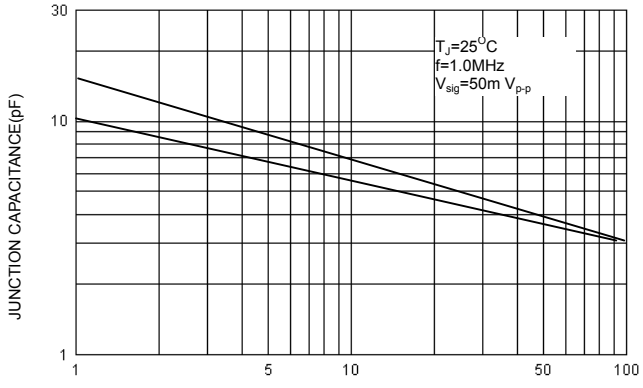


FIG-6 TYPICAL TRANSIENT THERMAL IMPEDANCE