

## 1.0Amp Surface Mount Fast Rectifiers

### FEATURES :

- Low profile package.
- Glass passivated chip junctions.
- Fast switching for high efficiency.
- High forward surge capability
- High temperature soldering:260/10 seconds at terminals.
- RoHS compliant.



SMA

### MECHANICAL DATA :

- Case : SMA, Molded plastic body
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Band denotes cathode



### MAXIMUM RATINGS (Ratings at 25 °C ambient temperature unless otherwise specified)

Characteristic	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{DC}$	50	100	200	400	600	800	1000	V
RMS Voltage	$V_{RMS}$	35	70	140	210	420	560	700	V
Average Rectifier Forward Current	$I_{(AV)}$	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.3							V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^{\circ}C$ 5							uA
		$T_A=100^{\circ}C$ 100							uA
Typical Junction Capacitance <sup>(1)</sup>	$C_J$	11					8		pF
Typical Thermal resistance <sup>(2)</sup>	$R_{\theta JA}$	75							°C/W
Reverse Recovery Time <sup>(3)</sup>	$T_{RR}$	150				250	500		ns
Operating Junction temperature	$T_J$	-55 to +150							°C
Storage temperature range	$T_{STG}$	-55 to +150							°C

Note : 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C  
 2.Units mounted on P.C.B. 5.0 x 5.0 mm (0.013 mm thick)land areas.  
 3.Reverse Recovery Test Conditions  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{RR}=0.25A$ .

RATINGS AND CHARACTERISTICS CURVES

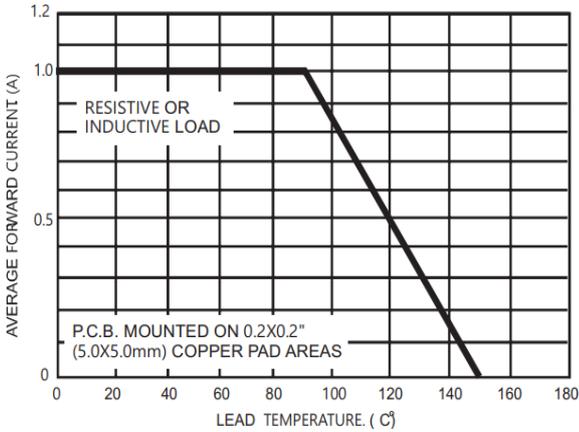


Figure 1.FORWARD CURRENT DERATING CURVE

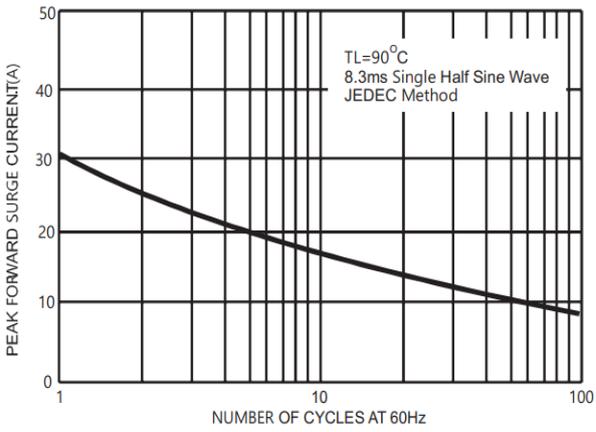


Figure 2. MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

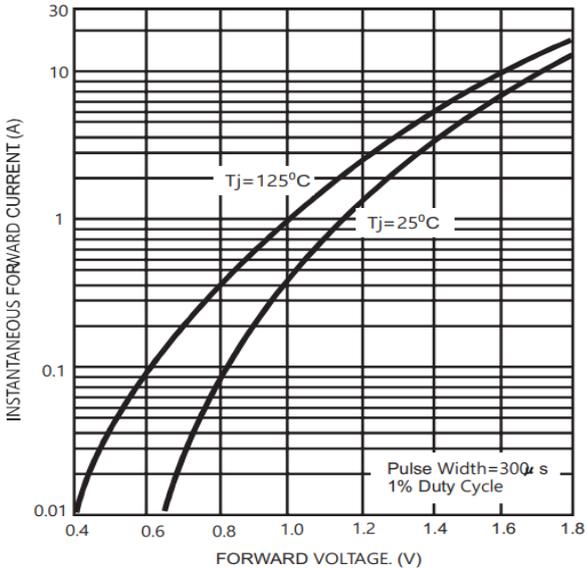


Figure 3. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

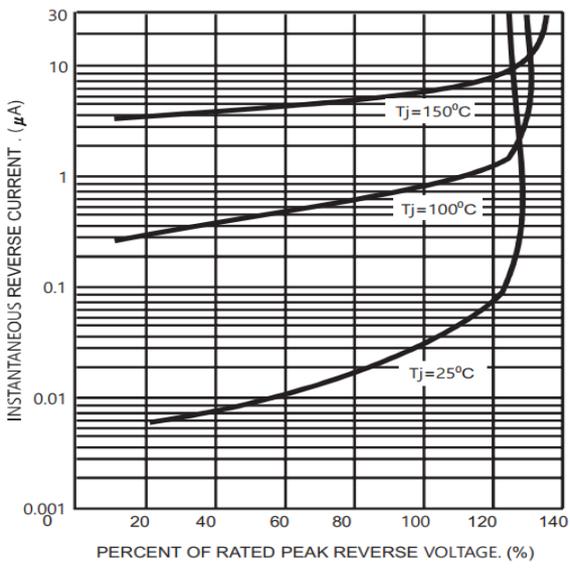


Figure 4. TYPICAL REVERSE CHARACTERISTICS

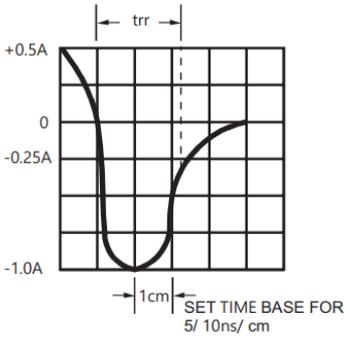
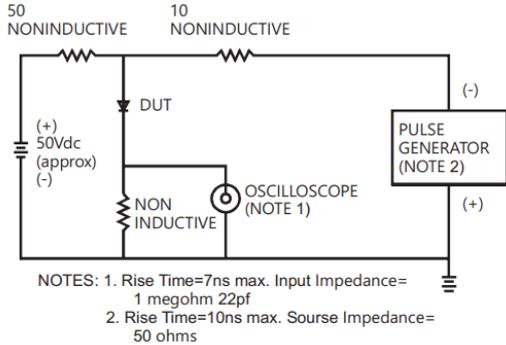


Figure 5. REVERSE RECOVERY TIME AND TEST CIRCUIT DIAGRAM

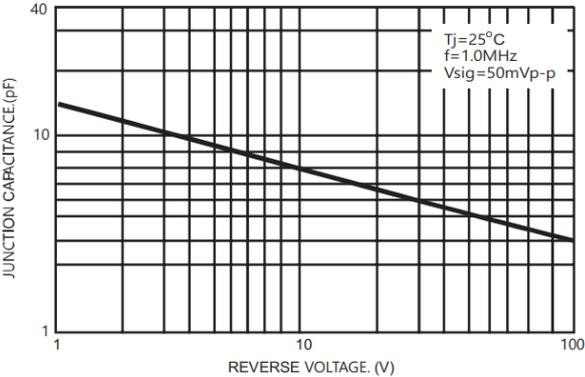
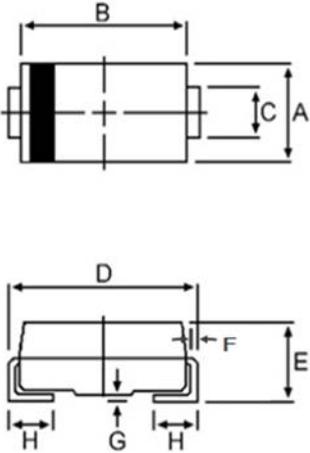


Figure 6. TYPICAL JUNCTION CAPACITANCE

- DO-214AC Package outlines : Dimensions in millimeters



Dimensions	Millimeters	
	Min	Max
A	2.20	2.80
B	3.90	4.75
C	1.25	1.70
D	4.70	5.30
E	1.90	2.50
F	0.152	0.305
G	0.00	0.203
H	0.75	1.55

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