

Surface Mount Fast Recovery Rectifiers

Pb Lead(Pb)-Free

Features:

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Fast switching speed

Mechanical Data:

- * Case : Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.063 grams

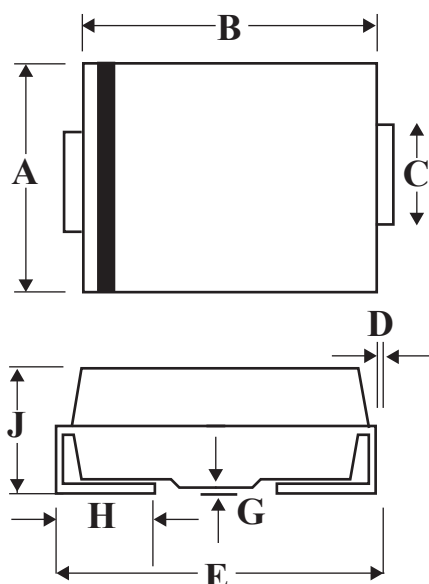
REVERSE VOLTAGE
50 TO 1000 VOLTS
FORWARD CURRENT
1.0 AMPERE



SMA(DO-214AC)

SMA Outline Dimension

Unit:mm



SMA		
Dim	Min	Max
A	2.20	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.48	5.59
G	0.10	0.20
H	0.76	1.52
J	1.70	2.62

Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase HalfWave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit	
Maximum Recurrent 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 .375"(9.5mm) Lead Length at T _A = 50°C	I _{F(AV)}	1.0							A	
Peak Forward Surge Current,8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC)	I _{FSM}	30							A	
Maximum Instantaneous At 1.0A DC	V _F	1.3							V	
Maximum DC Reverse Current @Ta = 25°C At Rated DC BlockingVoltage @Ta = 100°C	I _R	5.0 100							µA	
Max Reverse Recovery Time ¹	T _{rr}	150				250		500		nS
Typical Junction Capacitance ²	C _J	15							pF	
OperatingTemperature Range	T _J	+175							°C	
StorageTemperature Range	T _{STG}	-65 to +175							°C	

Notes: 1.Reverse Recovery Time test 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.

RATING AND CHARACTERISTIC CURVES

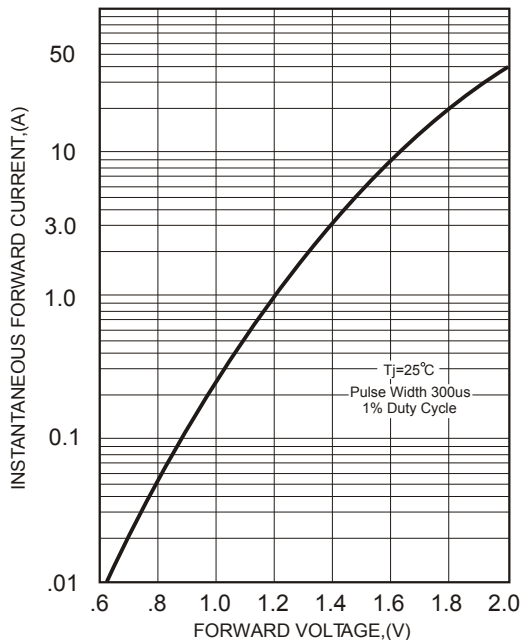
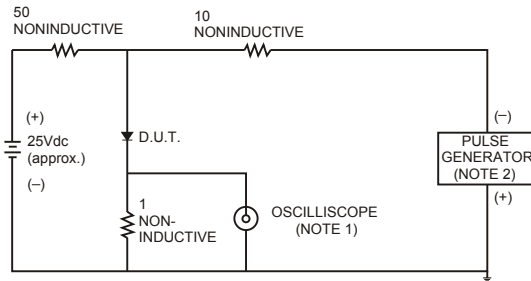


Fig.1 TYPICAL FORWARD CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

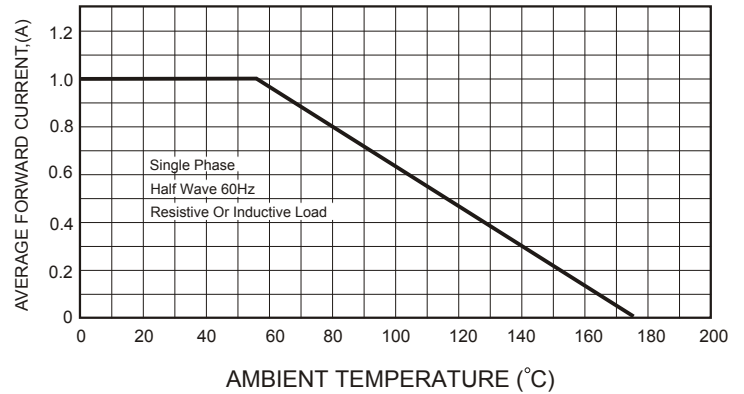
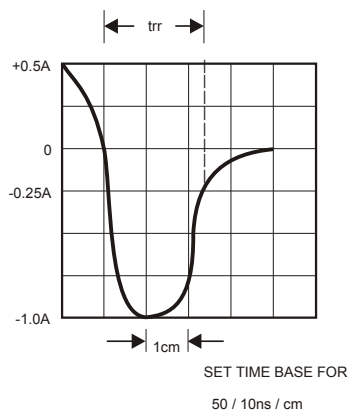


Fig.2 TYPICAL FORWARD CURRENT DERATING CURVE

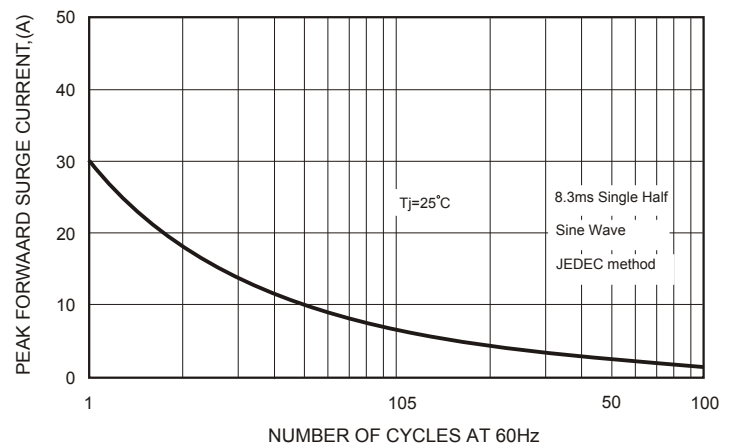


Fig.4 MAXIMUM NON-REPETITIVE FORWARDSURGE CURRENT

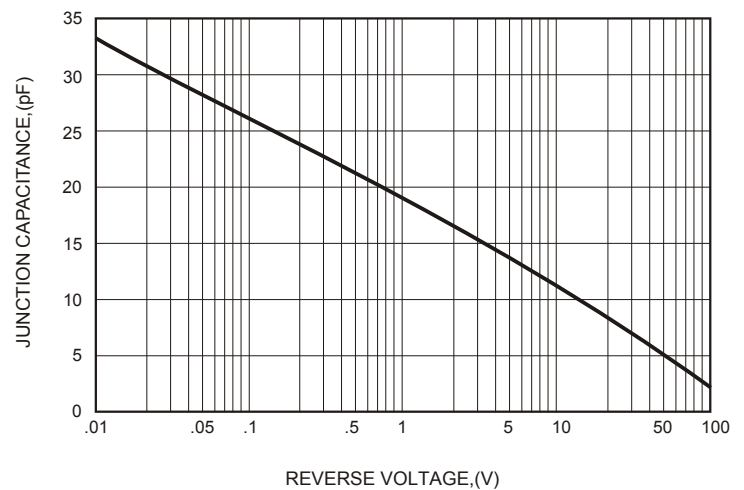


Fig.5 TYPICAL JUNCTION CAPACITANCE