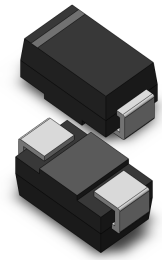
SS1A - SS1M

SURFACE MOUNT SUPER FAST RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V
CURRENT: 1.0 A



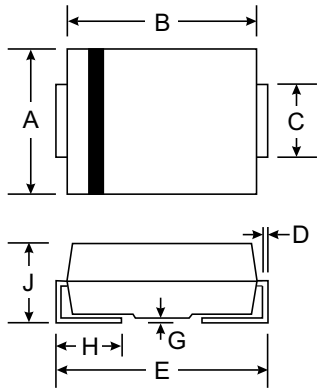
Features

- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop
- Super fast recovery time

Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

RoHS COMPLIANT



SMA(DO-214AC)		
Dim	**Min**	**Max**
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SS1A	SS1B	SS1C	SS1D	SS1E	SS1G	SS1J	SS1K	SS1M	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	800	1000	Volts
Maximum Average Forward Current Ta = 55 °C	$I_{F(AV)}$	1.0									Amp.
Peak Forward Surge Current 8.3 ms. Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30									Amps.
Maximum Peak Forward Voltage at I_F = 1.0 Amp.	V_F	0.95				1.4		1.7			Volts
Maximum DC Reverse Current Ta = 25 °C	I_R	5									µA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	50									µA
Maximum Reverse Recovery Time (Note 1)	Trr	35									ns
Typical Junction Capacitance (Note 2)	C_J	50									pf
Junction Temperature Range	T_J	- 65 to + 150									°C
Storage Temperature Range	T_{STG}	- 65 to + 150									°C

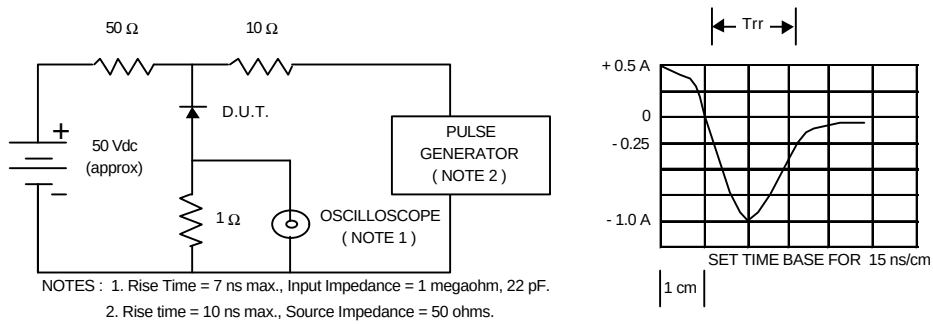
Notes :

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}

RATING AND CHARACTERISTIC CURVES (SS1A - SS1M)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

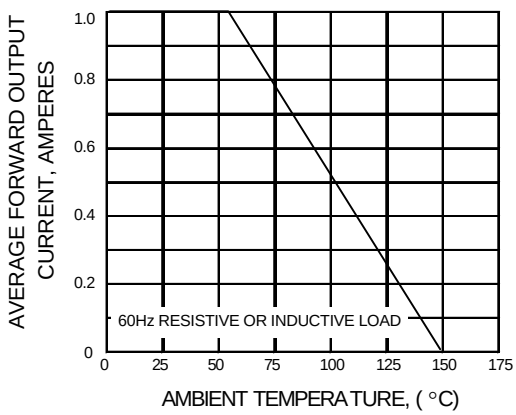


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

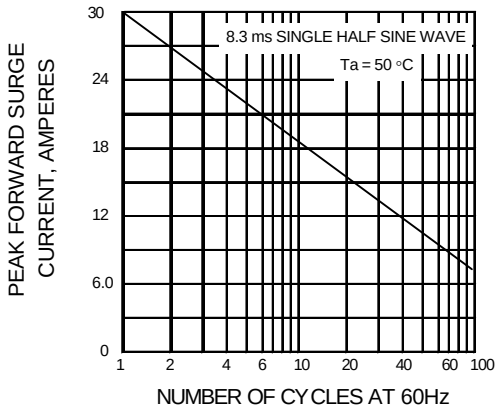


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

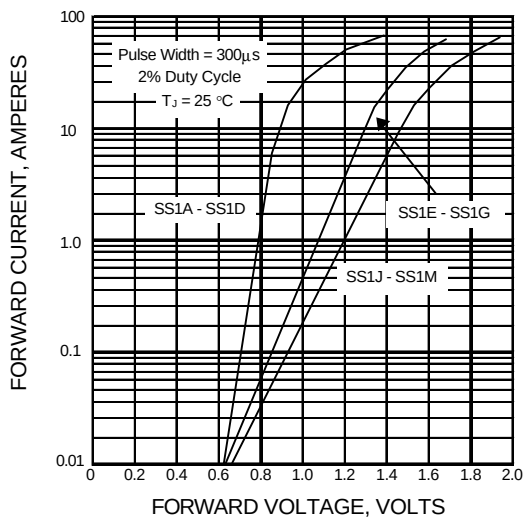


FIG.5 - TYPICAL REVERSE CHARACTERISTICS