



ESD



TVS



TSS



MOV



GDT



PLED

SS12-MS THRU SS110-MS

Product specification

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

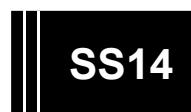
MECHANICAL DATA

- 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.)

Reference News

DO-214AC/SMA	Schematic Diagram
	

Marking

SS12-MS	SS13-MS	SS14-MS	SS15-MS
			
SS16-MS	SS18-MS	SS110-MS	
			

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	SS12-MS	SS13-MS	SS14-MS	SS15-MS	SS16-MS	SS18-MS	SS110-MS	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current at T_L (see fig.1)	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	0.45	0.55	0.70	0.85				V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.5				6.0			
Typical junction capacitance (NOTE 1)	C_J	110		90		5.0			
Typical thermal resistance (NOTE 2)		88.0							$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-65 to +125		-65 to +150					
Storage temperature range	T_{STG}	-65 to +150							$^\circ\text{C}$

Note:

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

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

RATINGS AND CHARACTERISTIC CURVES SS12-MS THRU SS110-MS

FIG. 1- FORWARD CURRENT DERATING CURVE

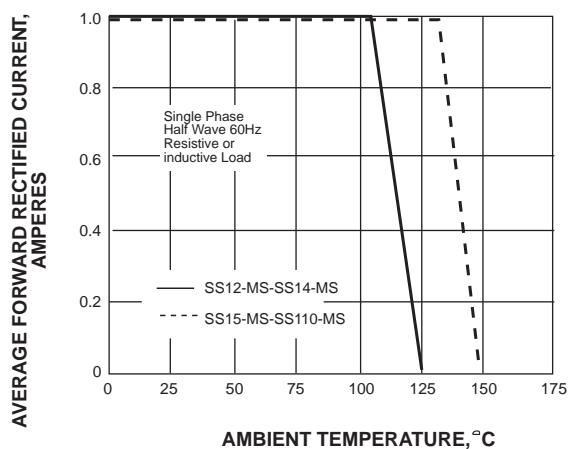


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

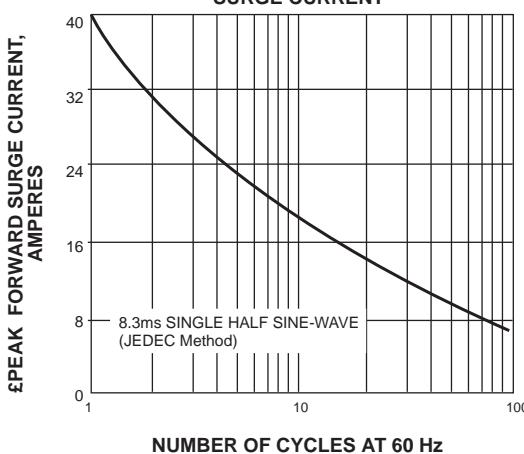


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

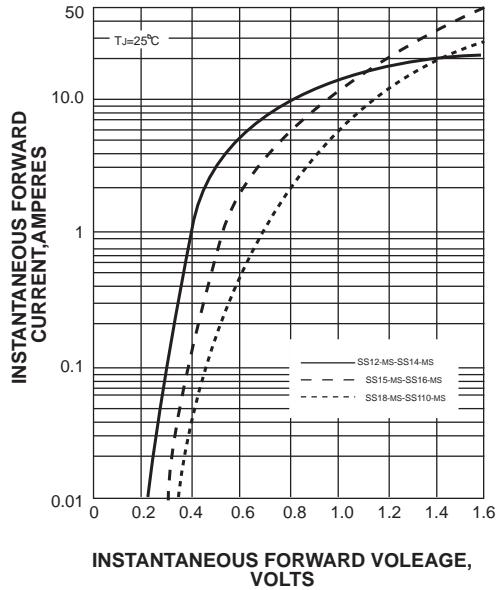


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

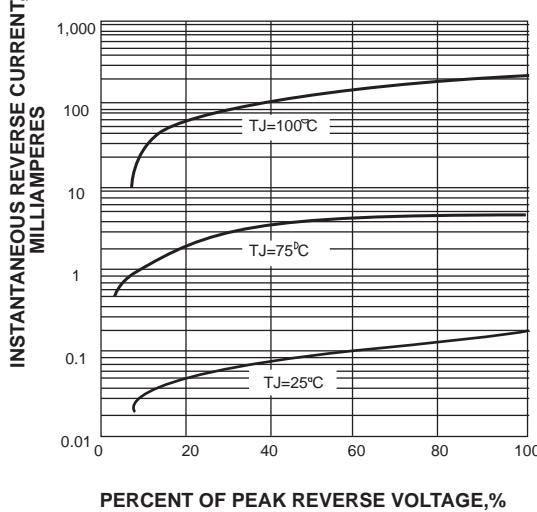


FIG. 5-TYPICAL JUNCTION CAPACITANCE

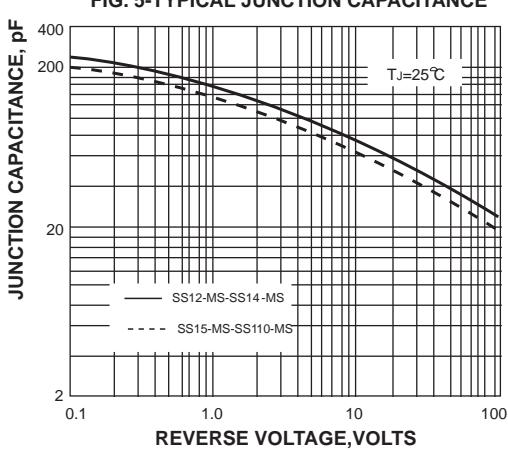
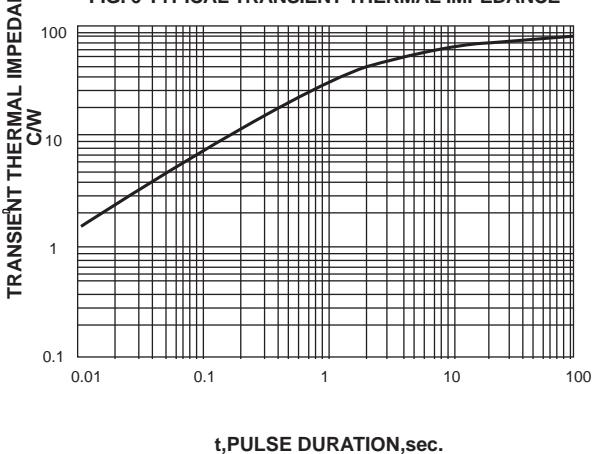
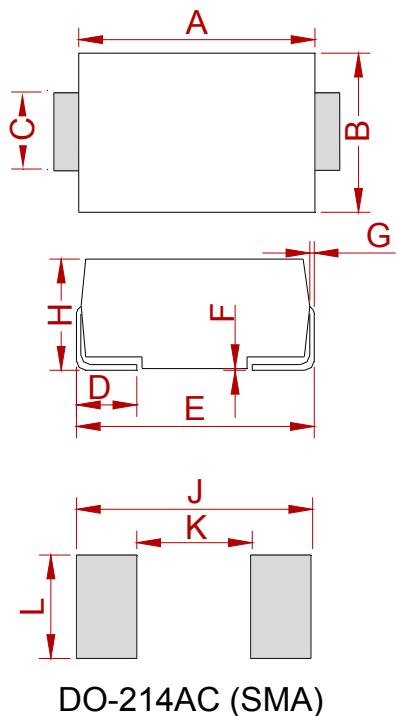


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



PACKAGE MECHANICAL DATA


Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.65	0.167	0.183
B	2.50	2.90	0.098	0.114
C	1.35	1.65	0.053	0.065
D	0.76	1.52	0.030	0.060
E	4.93	5.28	0.194	0.208
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	1.98	2.41	0.078	0.095
J	6.50		0.256	
K		2.30		0.090
L	1.70		0.067	

REEL SPECIFICATION

P/N	PKG	QTY
SS12-MS THRU SS110-MS	SMA(DO-214AC)	2000

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