

## SCHOTTKY DIODES

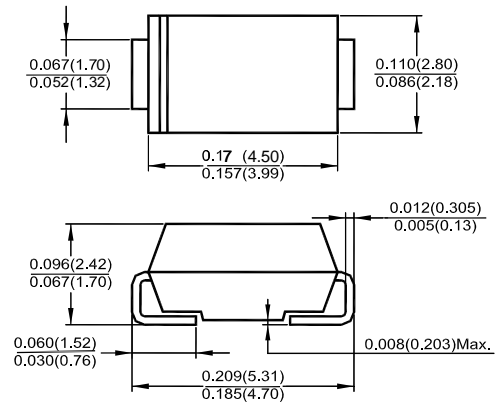
### FEATURES

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Built-in strain relief, ideal for automated placement
- Low power loss, high efficiency.
- High forward surge current capability

### MECHANICAL DATA

- SMA (DO-214AC) molded plastic body
- leads solderable per MIL-STD-750, Method 2026
- color band denotes cathode end

### SS12---SS120



Dimensions in inches and (millimeters)  
DO-214AC (SMA)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MDD Catalog Number	SYMBOLS	SS12	SS13	SS14	SS15	SS16	SS18	SS110	SS115	SS120	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	VOLTS
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	VOLTS
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	VOLTS
Maximum average forward rectified current at $T_L$ (see fig.1)	$I_{(AV)}$	1.0									Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0									Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.45	0.55	0.70			0.85		0.95		Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	$I_R$	0.5					0.2		0.2		mA
Typical junction capacitance (NOTE 1)	$C_J$	110			90						pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	88.0									$^\circ C/W$
Operating junction temperature range	$T_J$	-50 to +125					-50 to +150				$^\circ C$
Storage temperature range	$T_{STG}$	-50 to +150									$^\circ C$

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

SS12---SS120 Typical Characteristics

FIG.1-FORWARD CURRENT DERATING CURVE

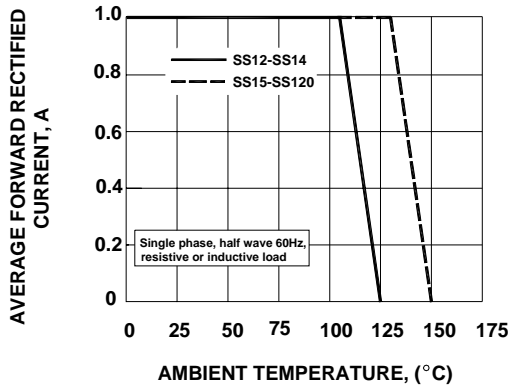


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

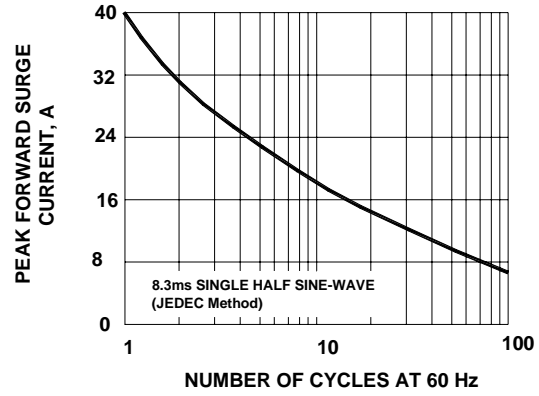


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

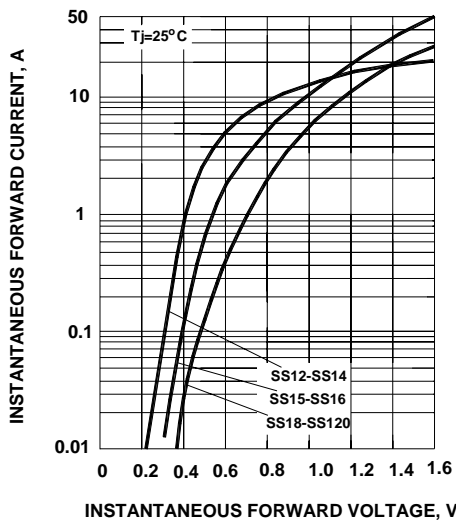


Fig.4- TYPICAL REVERSE CHARACTERISTICS

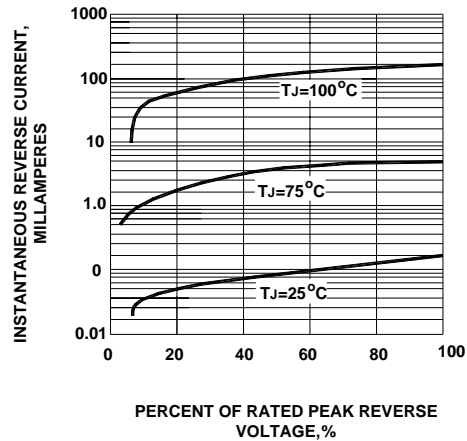


Fig.5- TYPICAL JUNCTION CAPACITANCE

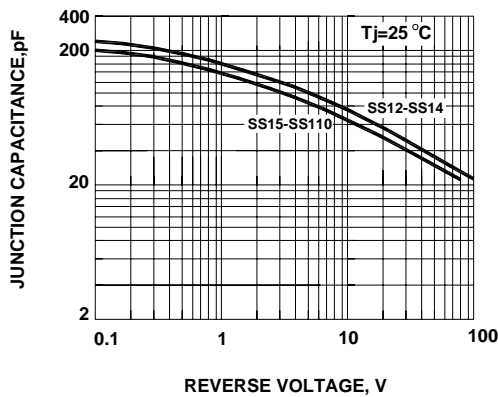


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

