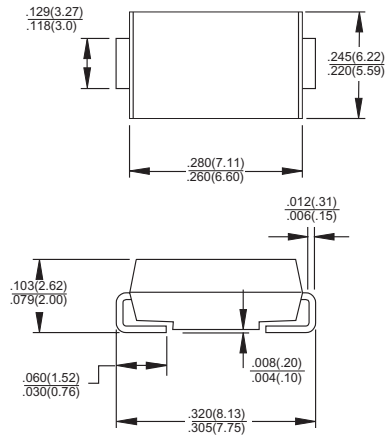
SS32 THRU SS310

3.0 AMPS. Surface Mount Schottky Barrier Rectifiers

Voltage Range
20 to 100 Volts
Current
3.0 Amperes

SMC/DO-214AB



Dimensions in inches and (millimeters)

Features

- ✧ For surface mounted application
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low forward voltage drop
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.21 gram

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbol	SS 32	SS 33	SS 34	SS 35	SS 36	SS 39	SS 310	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current at T_L(See Fig. 1)	$I_{(AV)}$	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100							A
Maximum Instantaneous Forward Voltage (Note 1) @ 3.0A	V_F	0.5			0.75		0.85		V
Maximum DC Reverse Current @ T_A =25℃ at Rated DC Blocking Voltage @ T_A=100℃	I_R	0.5					0.6		mA
		20			10.0		20		mA
Typical Thermal Resistance (Note 2)	$R\theta_{JL}$ $R\theta_{JA}$	17 55							℃/W ℃/W
Operating Temperature Range	T_J	-55 to +125			-55 to +150				℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Measured on P.C.Board with 0.6 x 0.6"(16 x 16mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (SS32 THRU SS310)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

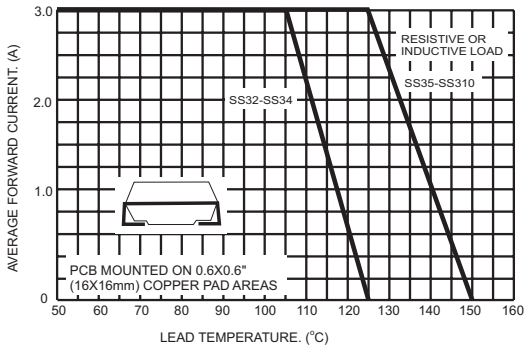


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

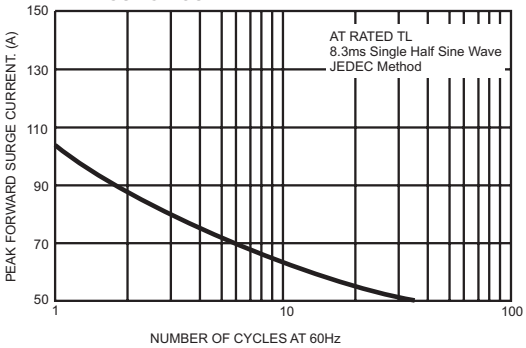


FIG.3- TYPICAL FORWARD CHARACTERISTICS

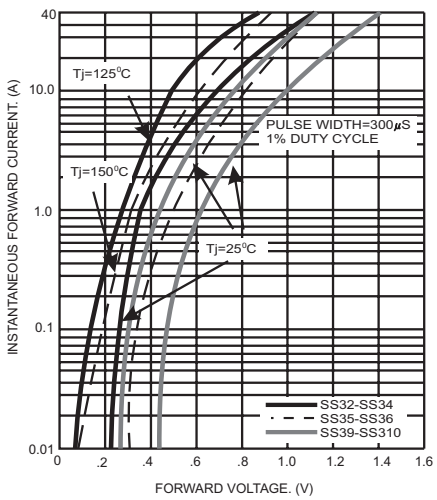


FIG.4- TYPICAL REVERSE CHARACTERISTICS

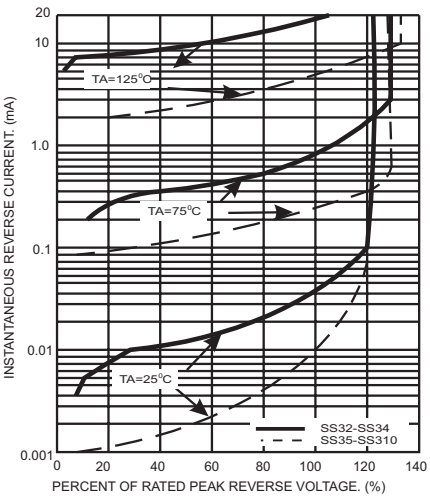


FIG.5- TYPICAL JUNCTION CAPACITANCE

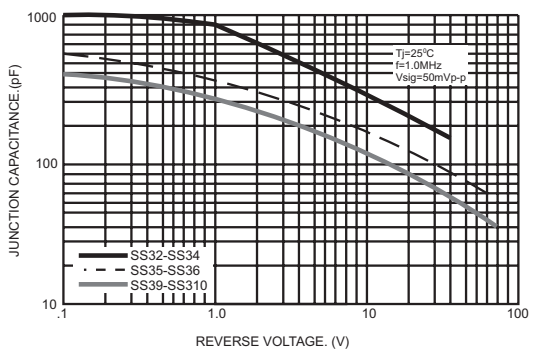


FIG.6- TYPICAL TRANSIENT TERMAL IMPDANCE