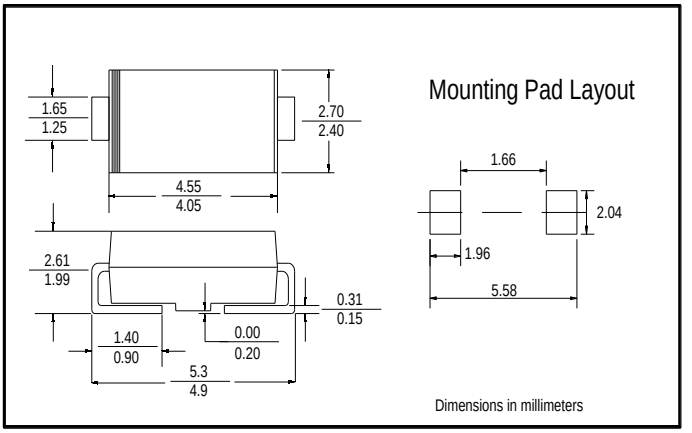
3.0 AMPS Surface Mount Schottky Barrier Rectifiers

Features

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

DO-214AC (SMA)



Mechanical Data

- Case: JEDEC SMA/DO-214AC Molded plastic
- Terminals: Pure tin plated, lead free
- Polarity: Indicated by cathode band
- Weight: 0.064 gram

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	SS 32A	SS 33A	SS 34A	SS 35A	SS 36A	SS 39A	SS 310A	SS 315A	SS 320A	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	140	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	200	200	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							70		A
Maximum Instantaneous Forward Voltage (Note 1) IF= 3.0A @ 25℃ / @ 100°C	V_F	0.5 0.4			0.70 0.60		0.85 0.70		0.95 0.80		V
Maximum DC Reverse Current @ T_A=25°C	I_R	0.5					0.1				mA
at Rated DC Blocking Voltage @ T_A=100°C		10			5		0.5				mA
Typical Thermal Resistance (Note 2)	$R_{\Theta JL}$ $R_{\theta JA}$	22 75									°C/W
Operating Temperature Range	T_J	-55 to +125			-55 to +150						°C
Storage Temperature Range	T_{STG}	-55 to +150									°C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

RATINGS AND CHARACTERISTIC CURVES (SS32A THRU SS320A)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

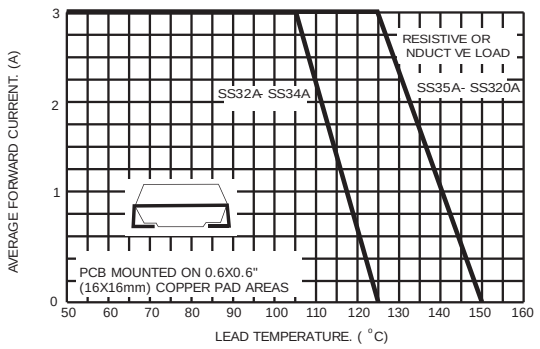


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

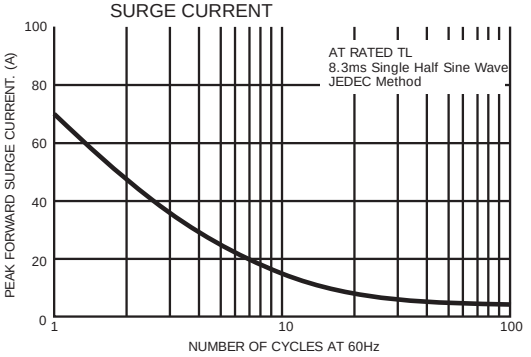


FIG.3- TYPICAL FORWARD CHARACTERISTICS

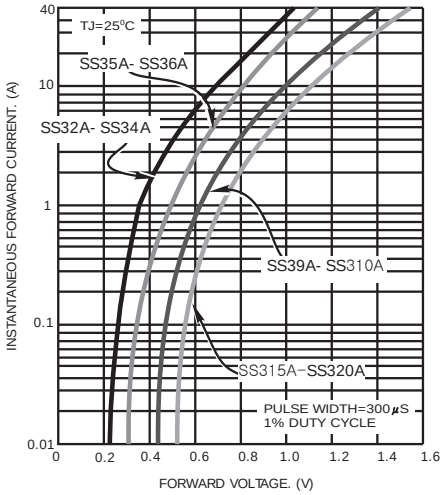


FIG.4- TYPICAL REVERSE CHARACTERISTICS

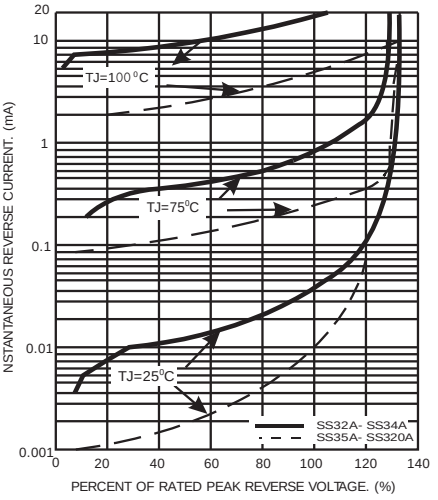


FIG.5- TYPICAL JUNCTION CAPACITANCE

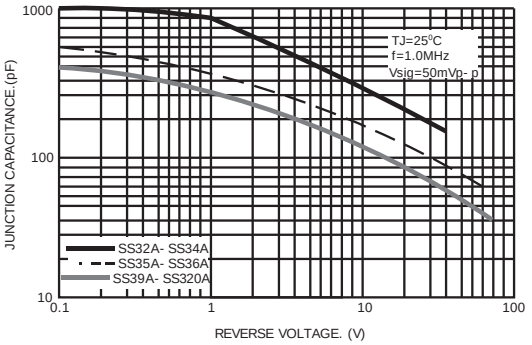


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS