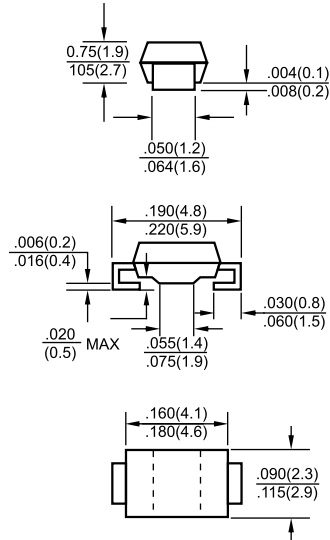




SMA/DO-214AC



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

Mechanical Data

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

Dimensions in inches and (millimeters)

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	SS	SS	SS	SS	SS	SS	SS	Units		
		32A	33A	34A	35A	36A	39A	310A	320A			
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90		100	200	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63		70	140	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90		100	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°C @ 100°C	V_F	0.4		5		0.75		0.85		0.95	V	
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	0.5						0.1			mA	
		10						5				
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	28									°C/W	
	$R_{\theta JA}$	88										
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

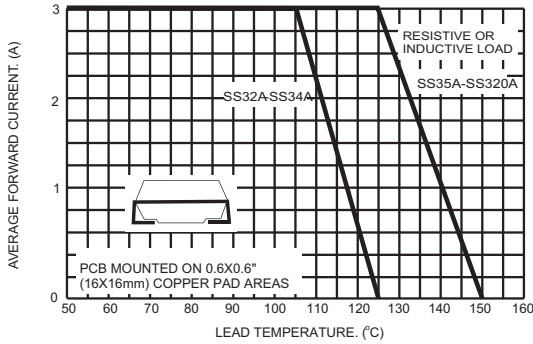


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

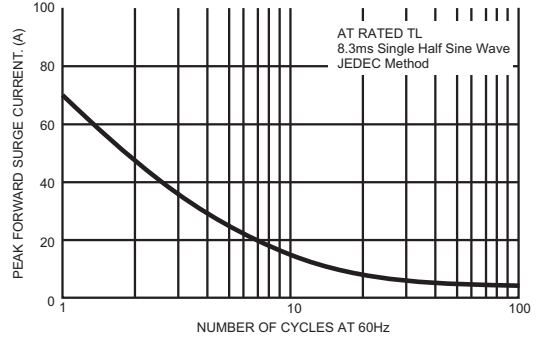


FIG.3- TYPICAL FORWARD CHARACTERISTICS

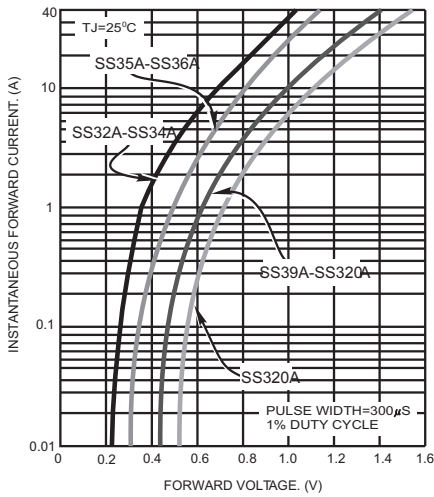


FIG.4- TYPICAL REVERSE CHARACTERISTICS

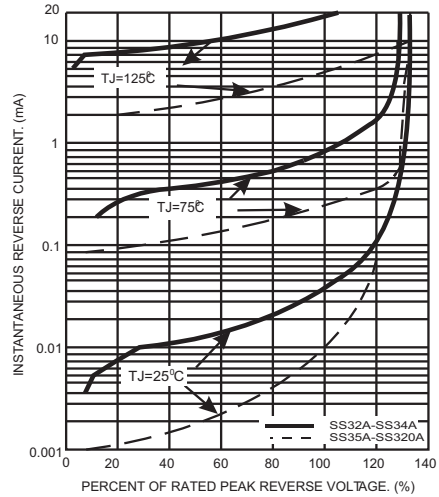


FIG.5- TYPICAL JUNCTION CAPACITANCE

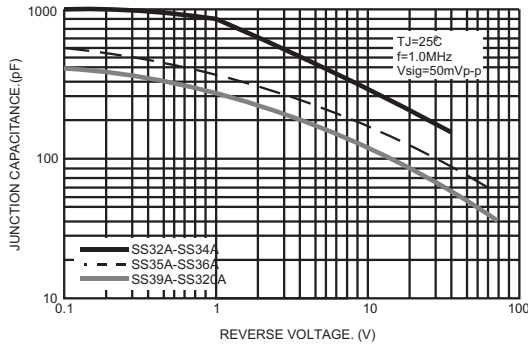


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

