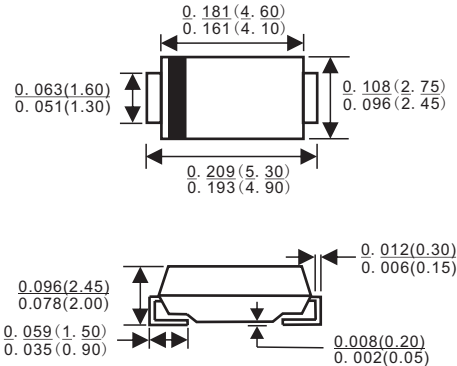




## SMA/DO-214AC

### 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%

Marking code	Symbol	SK 32A	SK 33A	SK 34A	SK 35A	SK 36A	SK 38A	SK 39A	SK 310A	SK 315A	SK 320A	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	150	200	V
Maximum Average Forward Rectified Current at $T_J$ (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)	$I_{FSM}$	70										A
Maximum Instantaneous Forward Voltage (Note 1) IF= 3.0A @ 25°C	$V_F$	0.55			0.75			0.85			V	
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	0.5					0.1					mA
		10			5			0.5				
Typical Thermal Resistance ( Note 2 )	$R_{\theta JL}$	28										°C/W
	$R_{\theta JA}$	88										
Operating Temperature Range	$T_J$	-55 to +150					-55 to +175					°C
Storage Temperature Range	$T_{STG}$	-55 to +150					-55 to +175					°C

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



### RATINGS AND CHARACTERISTIC CURVES (SK32A THRU SK320A)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

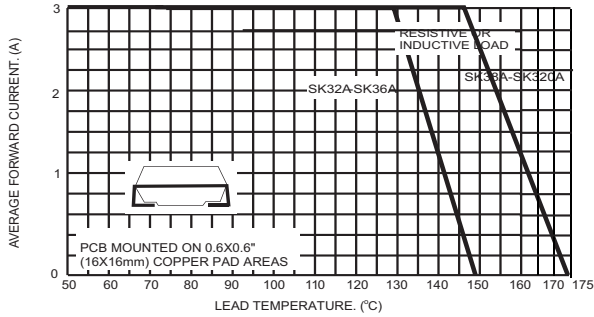


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

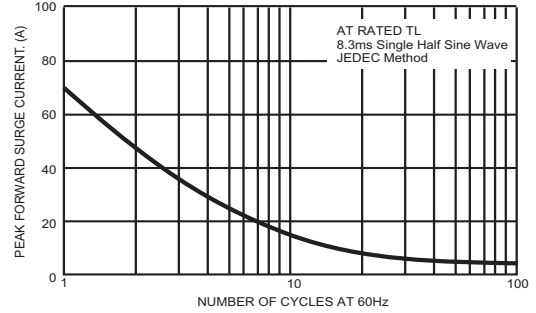


FIG.3- TYPICAL FORWARD CHARACTERISTICS

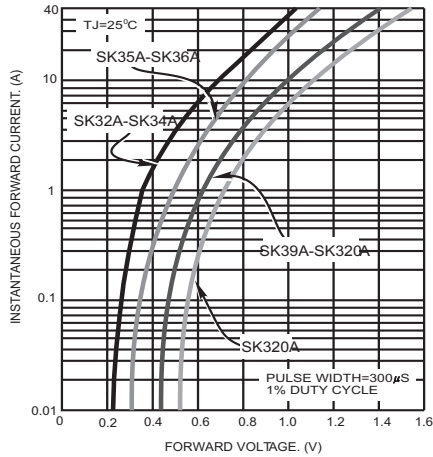


FIG.4- TYPICAL REVERSE CHARACTERISTICS

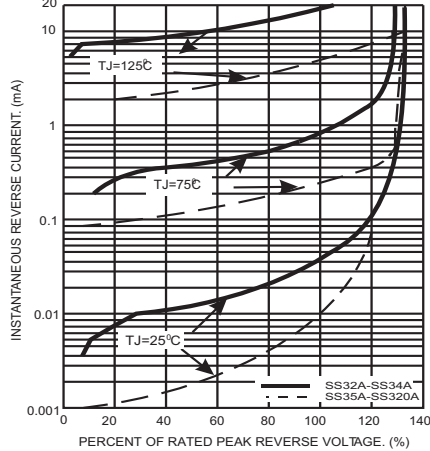


FIG.5- TYPICAL JUNCTION CAPACITANCE

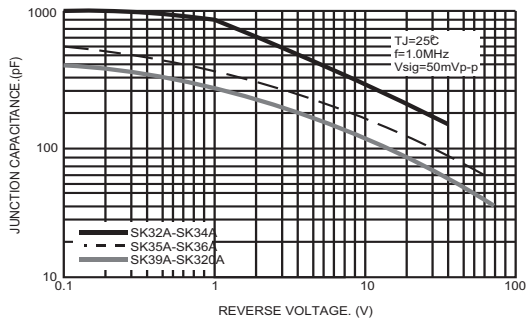
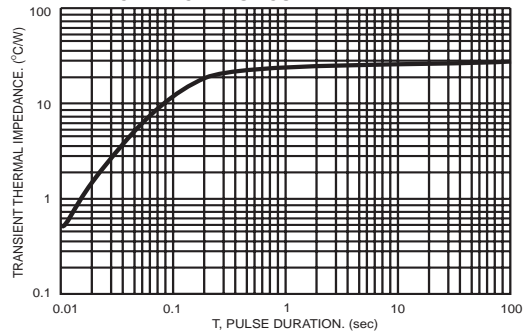


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00