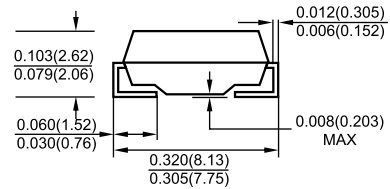
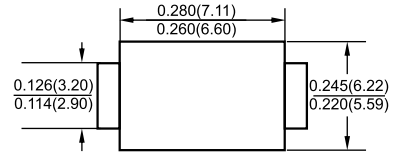




## SMC/DO-214AB

### 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: 0.21 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%

Parameter	SYMBOL	SS 32C	SS 33C	SS 34C	SS 35C	SS 36C	SS 38C	SS 39C	SS 310C	SS 315C	SS 320C	UNITS	
Marking code		SS32	SS33	SS34	SS35	SS36	SS38	SS39	SS310	SS315	SS320		
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	150	200	V	
Maximum RMS voltage	$V_{RWS}$	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 (see fig1)	$I_{F(AV)}$	3										A	
Peak forward surge current 8.3ms half-sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	100					80					A	
$I^2t$ Rating for Fusing( $t < 8.3ms$ )	$I^2t$	41.5					20.335					A <sup>2</sup> s	
Maximum Forward Voltage @ $I_{F(AV)}$ (Pulse test:300 $\mu$ s pulse width,1% duty cycle)	$V_F$	0.55				0.70		0.85				V	
Maximum DC Reverse current @Rated DC Blocking Voltage (Pulse test:Pulse width 40ms)	T=25°C	$I_R$	500					100					$\mu$ A
	T=100°C	$I_R$	5					-					mA
	T=125°C	$I_R$	10					5					mA
Typical Thermal Resistance (Device mounted on PCB with 10mm×20mm×0.1mm copper pad area)	$R_{\theta JA}$	64										°C/W	
	$R_{\theta JC}$	36											
	$R_{\theta JL}$	20											
Junction temperature range	$T_J$	-55~150					-55~175					°C	
Storage temperature range	$T_{STG}$	-55~150					-55~175					°C	



### RATINGS AND CHARACTERISTIC CURVES (SS32C THRU SS320C)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

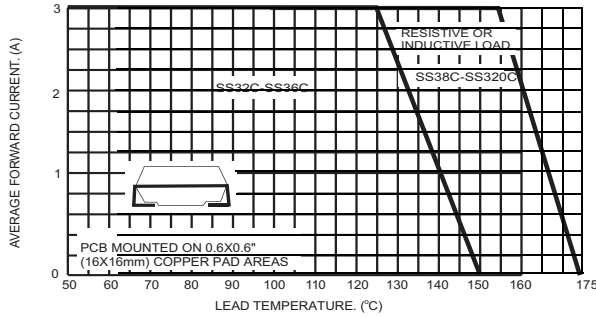


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

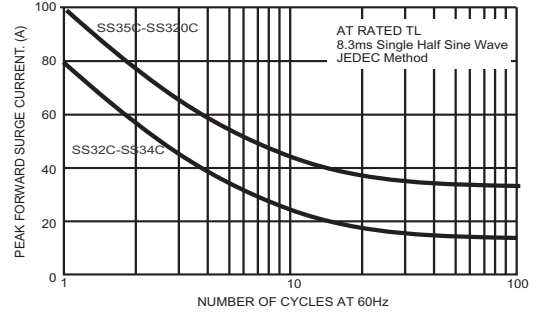


FIG.3- TYPICAL FORWARD CHARACTERISTICS

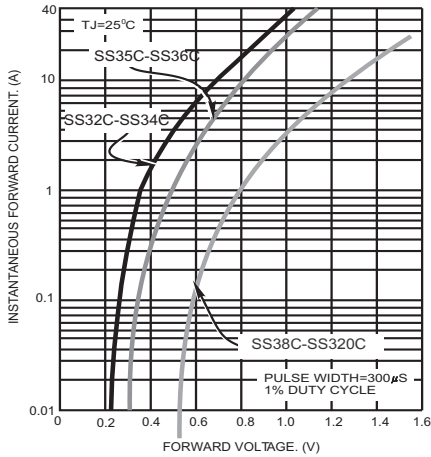


FIG.4- TYPICAL REVERSE CHARACTERISTICS

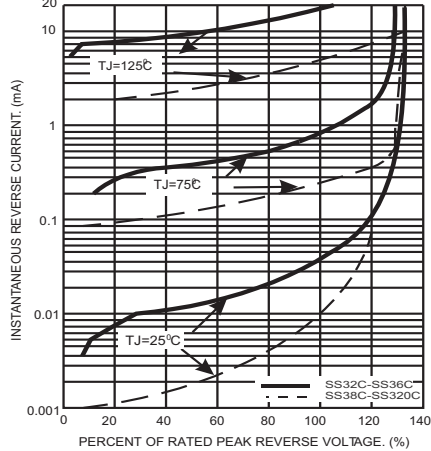


FIG.5- TYPICAL JUNCTION CAPACITANCE

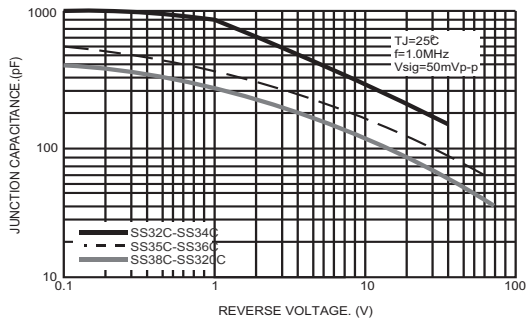
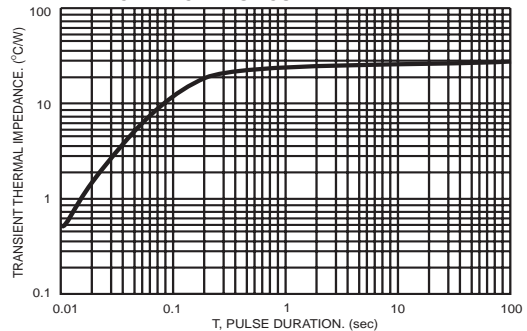


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMC	3000/REEL	42000	36X36X36.5	18.50	15.50