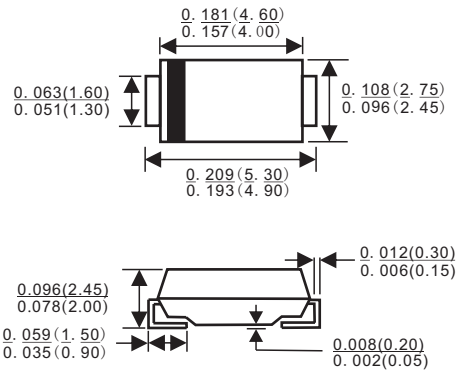
SS32A - SS320A

3.0 AMPS. Surface Mount Schottky Barrier Rectifiers

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



Dimensions in inches and(millimeters)

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%

Parameter		SYMBOL	SS 32A	SS 33A	SS 34A	SS 35A	SS 36A	SS 38A	SS 39A	SS 310A	SS 315A	SS 320A	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^2s
Maximun Forward Voltage @ $I_{F(AV)}$ (Pulse test:300 μ s pulse width,1% duty cycle)		V_F	0.55			0.70		0.85					V
Maximun DC Reverse current @Rated DC Blocking Voltage (Pulse test:Pulse width 40ms)	T=25℃	I_R	500					100					μA
	T=100℃	I_R	5					-					mA
	T=125℃	I_R	10					5					mA
Typical Thermal Resistance (Device mounted on PCB with 10mm×20mm×0.1mm copper pad area)		$R_{\Theta JA}$	75										℃/W
		$R_{\Theta JC}$	25										
		$R_{\Theta JL}$	30										
Junction temperature range		T_J	-55~150					-55~175					℃
Storage temperature range		T_{STG}	-55~150					-55~175					℃

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RATINGS AND CHARACTERISTIC CURVES (SS32A THRU SS320A)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

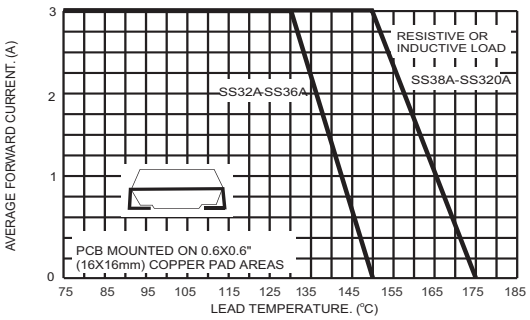


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

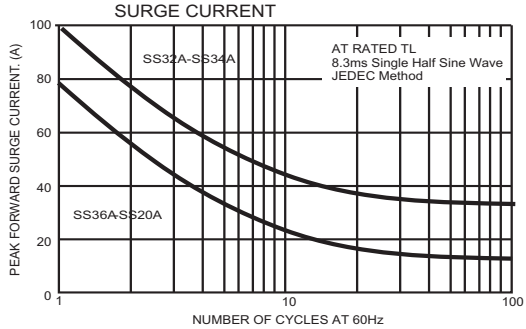


FIG.3- TYPICAL FORWARD CHARACTERISTICS

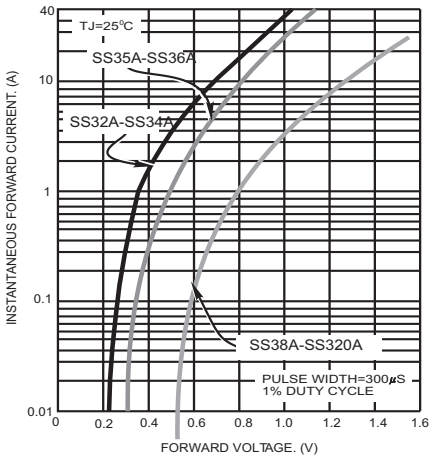


FIG.4- TYPICAL REVERSE CHARACTERISTICS

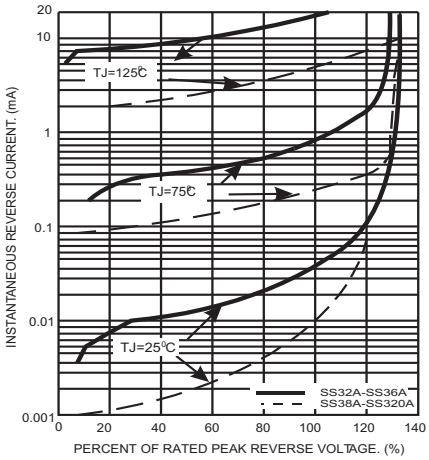


FIG.5- TYPICAL JUNCTION CAPACITANCE

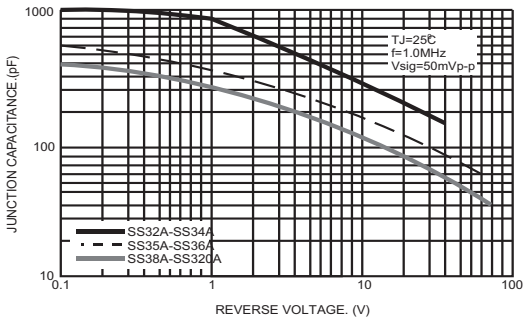
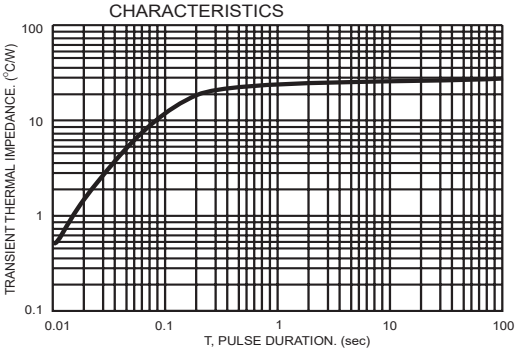


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



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