

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



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PLED

## B320A-13-F-MS THRU B3100A-13-F-MS

Product specification

**VOLTAGE RANGE: 20 - 100V**  
**CURRENT: 3.0 A**



## FEATURES

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

## MECHANICAL DATA

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.064 grams (approx.)









## Reference News

SMA/DO-214AC	Schematic Diagram
	

## PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

## Marking

B320A-13-F-MS	B330A-13-F-MS	B340A-13-F-MS	B350A-13-F-MS
			
B360A-13-F-MS	B380A-13-F-MS	B390A-13-F-MS	B3100A-13-F-MS
			

## Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	B320A -13-F- MS	B330A -13-F- MS	B340A -13-F- MS	B350A -13-F- MS	B360A -13-F- MS	B380A -13-F- MS	B390A -13-F- MS	B3110A -13-F- MS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	30	40	50	60	80	90	100	V
RMS Reverse Voltage	V <sub>R</sub> (RMS)	14	21	28	35	42	56	64	71	V
Average Rectified Output Current @T <sub>L</sub> = 105°C	I <sub>O</sub>	3.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80								A
Forward Voltage @I <sub>F</sub> = 2.0A	V <sub>FM</sub>	0.55			0.70		0.85			V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	1.0 20								mA
Typical Thermal Resistance (Note 1)	R <sub>θ</sub> JL R <sub>θ</sub> JA	10 50								°C/W
Operating Temperature Range	T <sub>j</sub>	-65 to +125								°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150								°C

# RATINGS AND CHARACTERISTIC CURVES

## B320A-13-F-MS THRU B3100A-13-F-MS

FIG. 1- FORWARD CURRENT DERATING CURVE

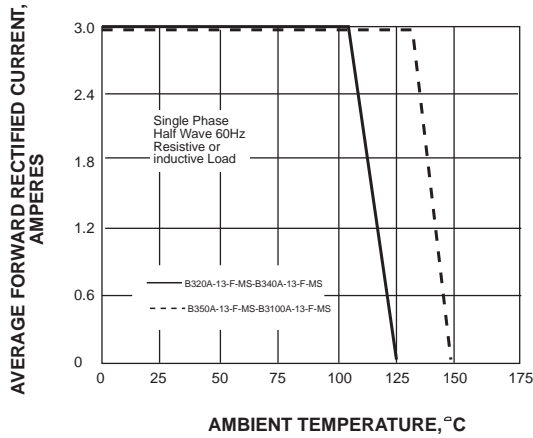


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

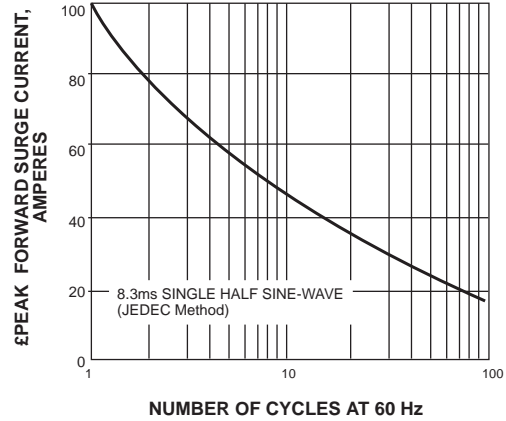


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

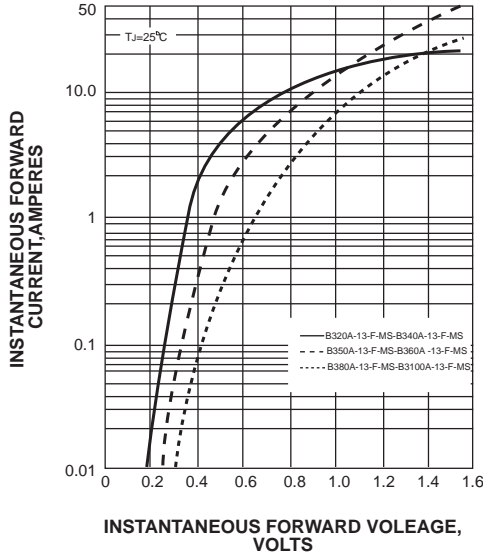


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

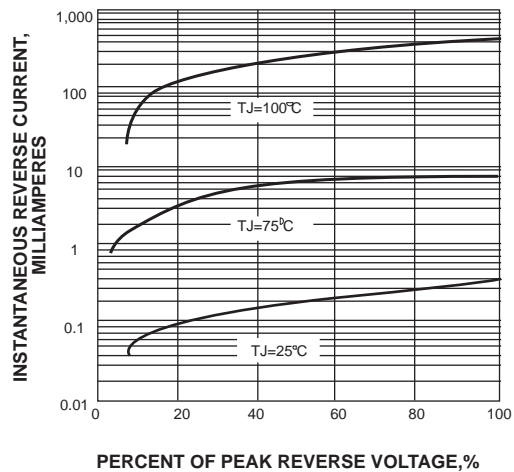


FIG. 5-TYPICAL JUNCTION CAPACITANCE

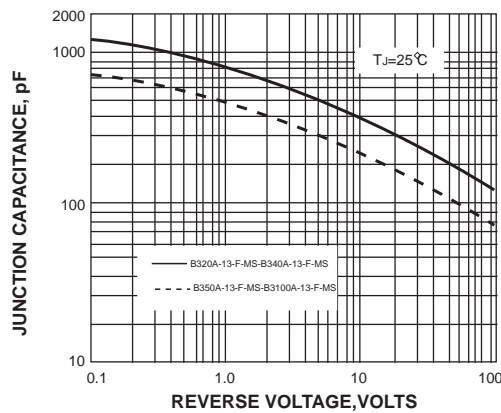
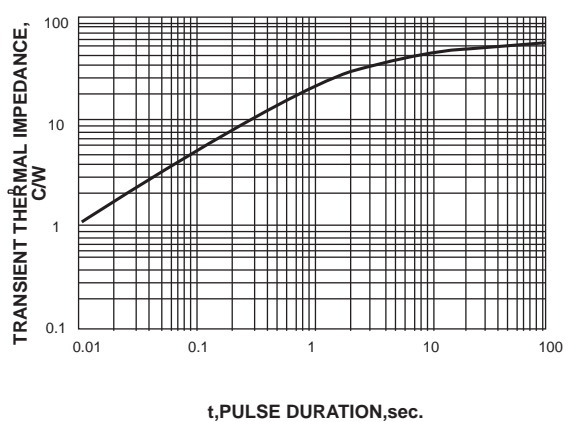
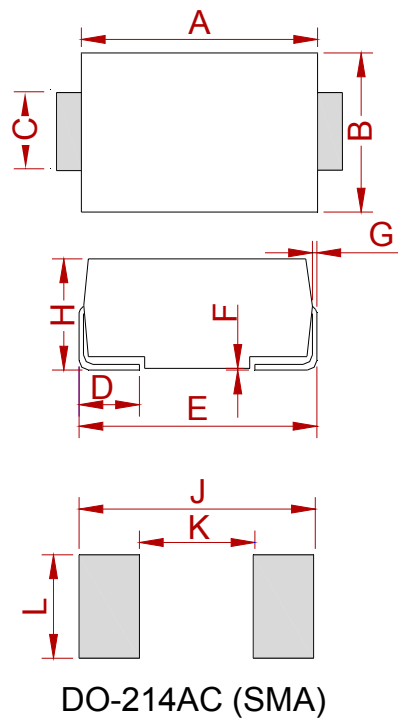


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



**PACKAGE MECHANICAL DATA**



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.65	0.167	0.183
B	2.50	2.90	0.098	0.114
C	1.35	1.65	0.053	0.065
D	0.76	1.52	0.030	0.060
E	4.93	5.28	0.194	0.208
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	1.98	2.41	0.078	0.095
J	6.50		0.256	
K		2.30		0.090
L	1.70		0.067	

**REEL SPECIFICATION**

P/N	PKG	QTY
B320A-13-F-MS THRU B3100A-13-F-MS	SMA	2000

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