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## **B320A(MS) THRU B3100A(MS)**

**Product specification**









## Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

## Mechanical Data

- **Case:** JEDEC DO-214AC molded plastic body
- **Terminals:** leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.002 ounce, 0.07 grams

## Reference News

Outline	Marking						
							
SMA	B320A(MS)	B330A(MS)	B340A(MS)	B350A(MS)	B360A(MS)	B380A(MS)	B3100A(MS)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

Catalog Number	SYMBOLS	B320A(MS)	B330A(MS)	B340A(MS)	B350A(MS)	B360A(MS)	B380A(MS)	B3100A(MS)	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	VOLTS
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	VOLTS
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	VOLTS
Maximum average forward rectified current at $T_L$ (see fig.1)	$I_{AV}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0							Amps
Maximum instantaneous forward voltage at 3.0A	$V_F$	0.55		0.70		0.85		Volts	
Maximum DC reverse current at rated DC blocking voltage	$I_R$	0.5							mA
		20					10		
Typical junction capacitance (NOTE 1)	$C_J$	500			300			pF	
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	55.0							°C/W
Operating junction temperature range	$T_J$	-50 to +125					-50 to +150		°C
Storage temperature range	$T_{STG}$	-50 to +150							°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C. 2. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

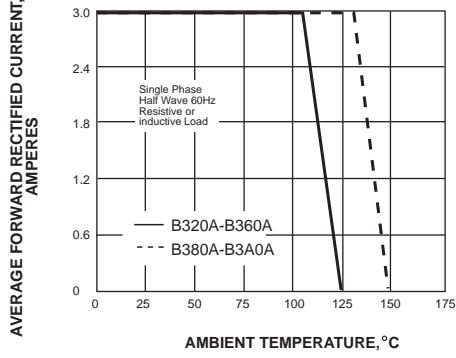


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

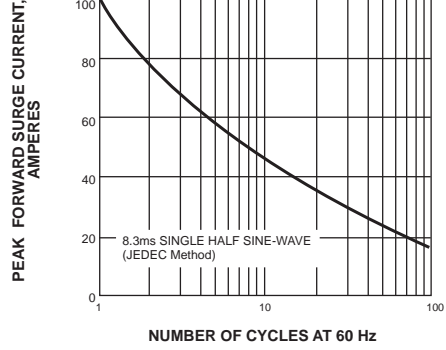


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

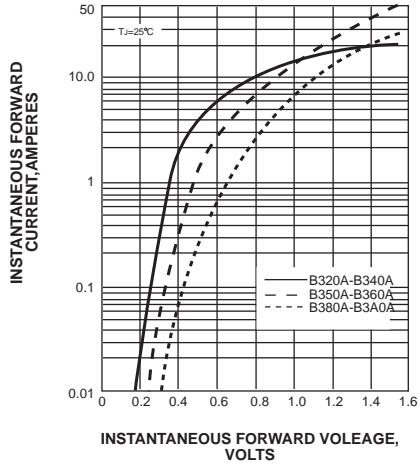


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

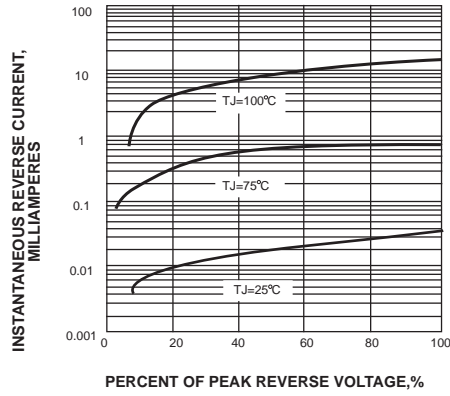


FIG. 5-TYPICAL JUNCTION CAPACITANCE

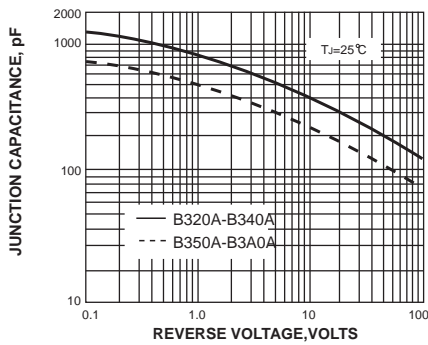
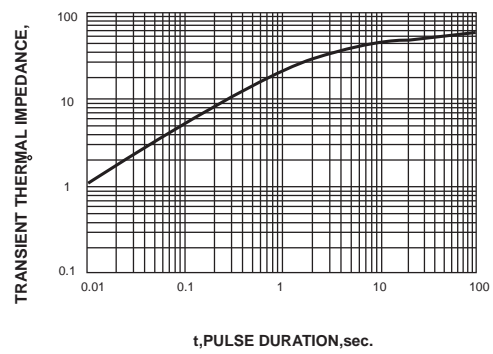
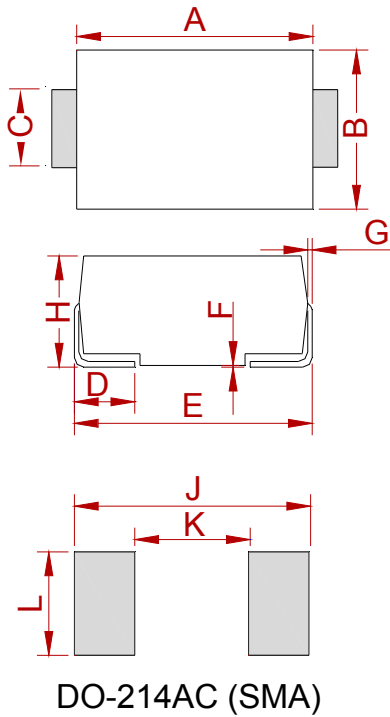


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

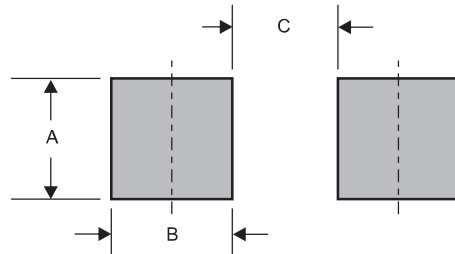


## PACKAGE MECHANICAL DATA



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	

## Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMA	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)

## REEL SPECIFICATION

P/N	PKG	QTY
B320A(MS) THRU B3100A(MS)	SMA	2000

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