

# 3.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V

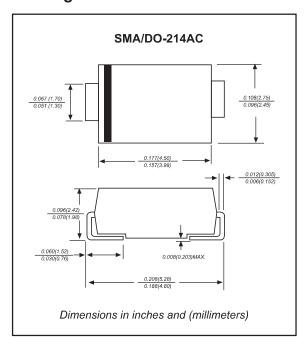
#### **Features**

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief,ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Compliant to RoHS 2.0
- ◆ Suffix"-H" indicates Halogen-free part,ex.B340A-H

#### Mechanical data

- ◆ Case: JEDEC DO-214AC molded plastic body
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any

### Package outline



#### Maximum ratings and Electrical Characteristics (AT T<sub>A</sub>=25°C unless otherwise noted)

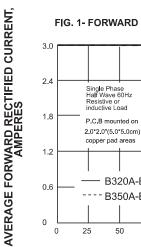
PARAMETER	SYMBOLS	B320A	B330A	B340A	B350A	B360A	B380A	B3100A	B3150A	B3200A	UNITS
Maximum repetitive peak reverse voltage	VRRM	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage		14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage		20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current at TL(see fig.1)		3.0							А		
										Peak forward surge current	
8.3ms single half sine-wave superimposed on		80.0						A			
rated load											
Maximum instantaneous forward voltage at 3.0A	VF		0.55		0.	70	(	).85	0.	95	V
Maximum DC reverse current Ta=25°C		0.5						mA			
at rated DC blocking voltage Ta=100℃	IR	10.0 5.0 2.0					)				
Typical junction capacitance (NOTE 1)	Cı	450			pF						
Typical thermal resistance (NOTE 2)	RθJA	JA 70			°C/W						
Operating junction temperature range		-55 to +125 -55 to +150				°C					
Storage temperature range	Тѕтс	-55 to +150			°C						

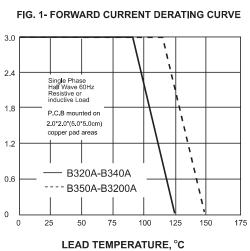
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C. 2.P.C.B. mounted with 2.0x2.0"(5.0x5.0cm) copper pad areas

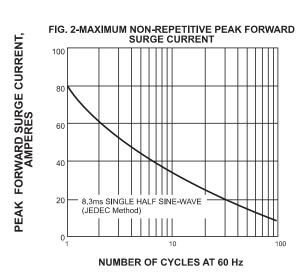


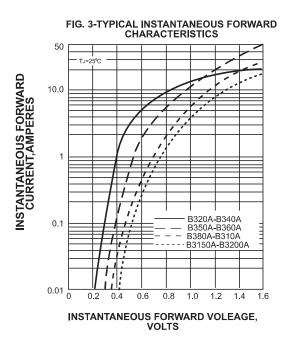
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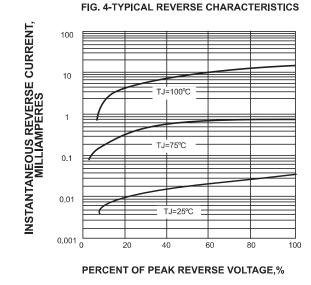
### Rating and characteristic curves

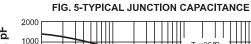


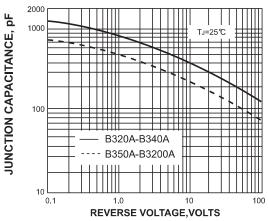


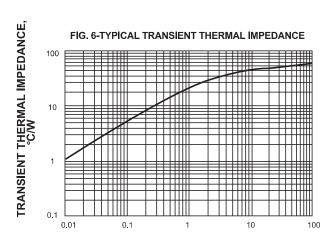














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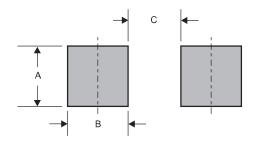
## **Pinning information**

Pin	Simplified outline	Symbol		
Pin1 cathode Pin2 anode	1 [	1 2		

### Marking

Type number	Marking code	Example
B320A B330A B340A B350A B360A B380A B3100A B3150A B3200A	B320A B330A B340A B350A B360A B380A B3100A B3150A B3200A	B340A Marking code

## Suggested solder pad layout



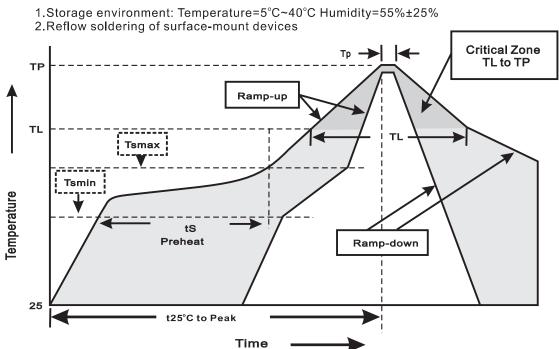
Dimensions in inches and (millimeters)

PACKAGE	Α	В	С		
SMA	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)		



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### Suggested thermal profiles for soldering processes



#### 3.Reflow soldering

Profile Feature	Soldering Condition		
Average ramp-up rate(T∟ to T♭)	<3°C/sec		
Preheat -Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(min to max)(t <sub>s</sub> )	150°C 200°C 60~120sec		
Tsmax to T∟ -Ramp-upRate	<3°C/sec		
Time maintained above: -Temperature(T∟) -Time(t∟)	217°C 60~260sec		
Peak Temperature(T <sub>P</sub> )	255°C-0/+5°C		
Time within 5°C of actual Peak Temperature(t <sub>P</sub> )	10~30sec		
Ramp-down Rate	<6°C/sec		
Time 25°C to Peak Temperature	<6minutes		

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