

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V Forward Current - 3.0A

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 60mg / 0.0021oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: B320A-B3200A
Simplified outline SMA and symbol

Absolute 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, derate by 20 %

Parameter	Symbols	B320AG	B340AG	B360AG	B380AG	B3100AG	B3120AG	B3150AG	B3200AG	Units					
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V					
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V					
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V					
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0							A						
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80				70				A					
Max Instantaneous Forward Voltage at 3 A	V_F	0.55		0.70		0.85		0.95		V					
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Reverse Voltage $T_a = 100^\circ C$	I_R	0.5		5		0.3		3		mA					
Typical Junction Capacitance ⁽¹⁾	C_j	450			400			pF							
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	70							°C/W						
Operating Junction Temperature Range	T_j	-55 ~ +125							°C						
Storage Temperature Range	T_{stg}	-55 ~ +150							°C						

(1) Measured at 1 MHz and applied reverse voltage of 4 V D C

(2) P C B. mounted with 2 0" X 2 0" (5 X 5 cm) copper pad areas

Fig.1 Forward Current Derating Curve

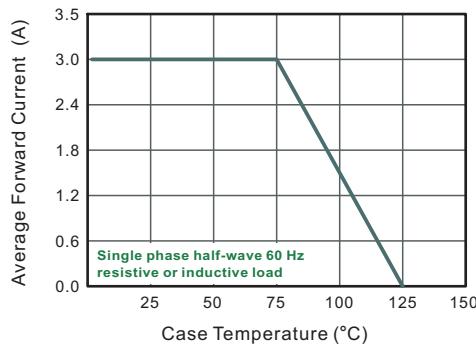


Fig.2 Typical Reverse Characteristics

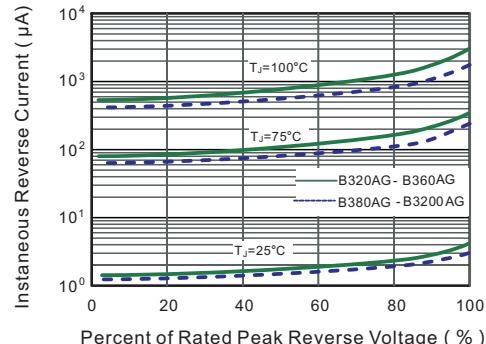


Fig.3 Typical Forward Characteristic

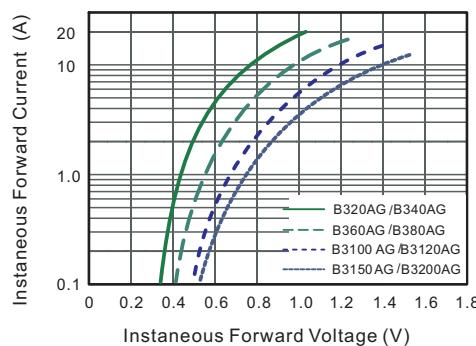


Fig.4 Typical Junction Capacitance

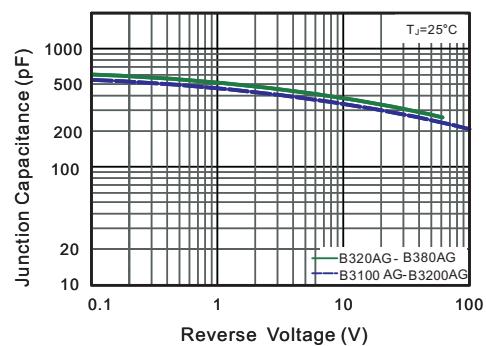


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

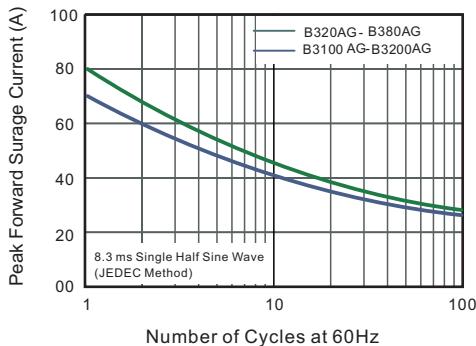
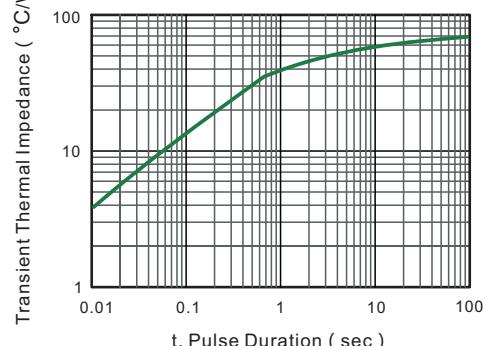


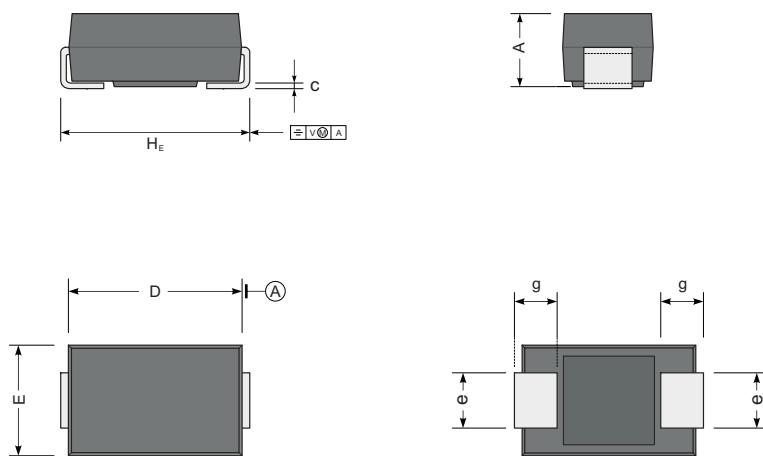
Fig.5- Typical Transient Thermal Impedance



PACKAGE OUTLINE

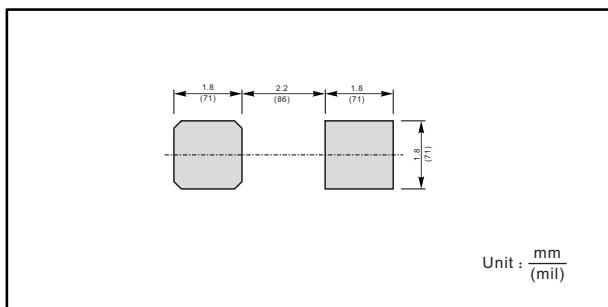
Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	H _E	c	e	g
mm	max	2.2	4.83	2.9	5.4	0.31	1.7	1.5
	min	1.9	4.32	2.3	4.7	0.12	1.2	0.9
mil	max	87	190	114	213	12	67	59
	min	75	170	91	185	5	47	35

The recommended mounting pad size



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