

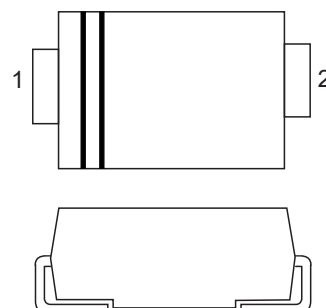
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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:
250 °C/10 seconds at terminals

DO-214AC/SMA

RoHS
COMPLIANT



Equivalent circuit



1.Cathode
2.Anode

Mechanical Data

- ◆ Case : JEDEC DO-214AC/SMA molded plastic body
- ◆ Terminals : Solderable per MIL-STD-750, Method 2026
- ◆ Polarity : Color band denotes cathode end Mounting
- ◆ Position : Any
- ◆ Weight : 0.0018 ounce, 0.064 grams

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%.

Parameter	SYMBOLS	B320A	B330A	B340A	B350A	B360A	B380A	B3100A	B3150A	B3200A	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current at TL(see fig.1)	I _(AV)	3.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I _{FSM}	100									A
Maximum instantaneous forward voltage at 3.0A	V _F	0.55			0.70			0.85		0.95	V
Maximum DC reverse current T _A =25℃ at rated DCblocking voltage T _A =125℃	I _R	0.5						0.2		mA	
		20						10	2.0		
Typical junction capacitance (NOTE 1)	C _J	500			300						pF
Typical thermal resistance (NOTE 2)	R _{θJA}	55.0									℃/W
Operating junction temperature range	T _J	-55 to +125						-55 to +150			℃
Storage temperature range	T _{STG}	-55 to +150									℃

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

Fig.1 Forward Current Derating Curve

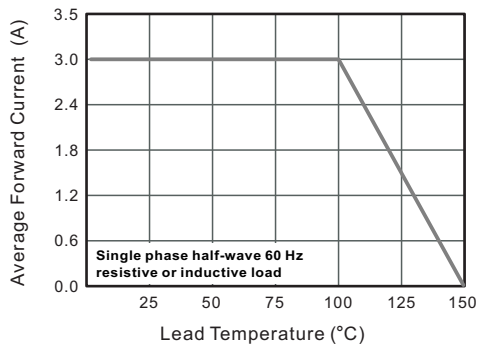


Fig.2 Typical Reverse Characteristics

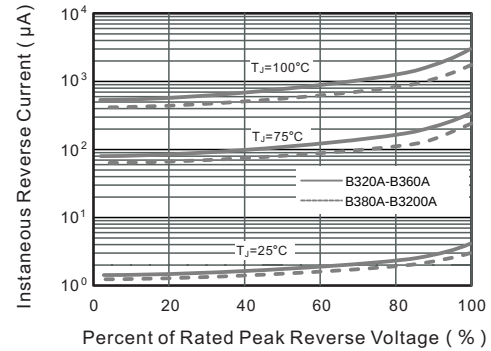


Fig.3 Typical Forward Characteristic

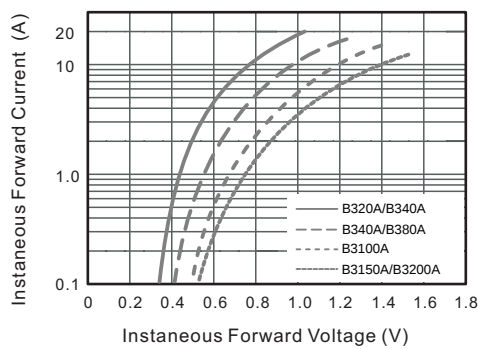


Fig.4 Typical Junction Capacitance

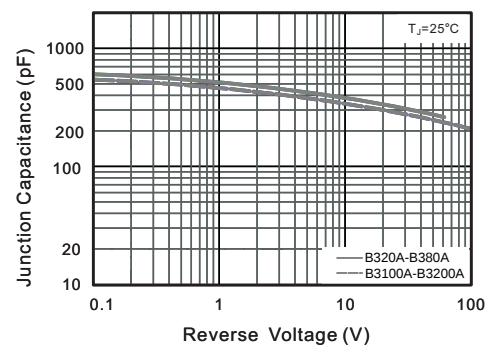


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

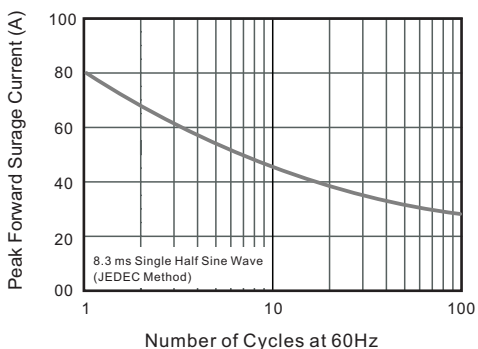
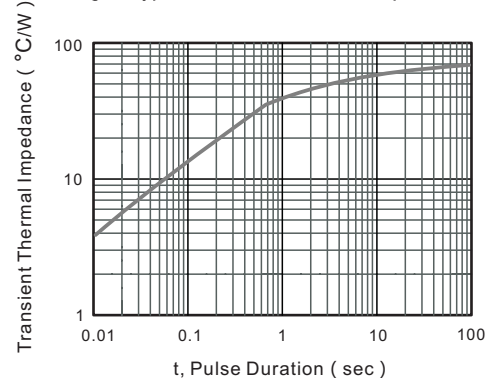
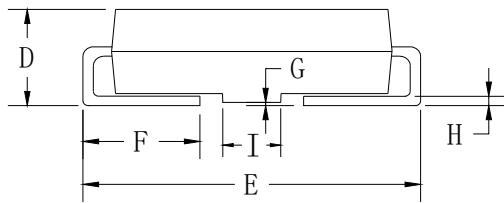
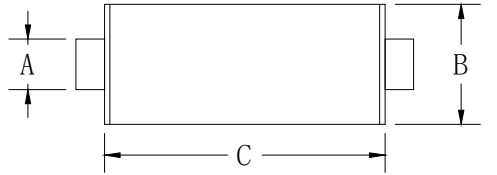


Fig.5- Typical Transient Thermal Impedance



SMA Package Outline Dimensions

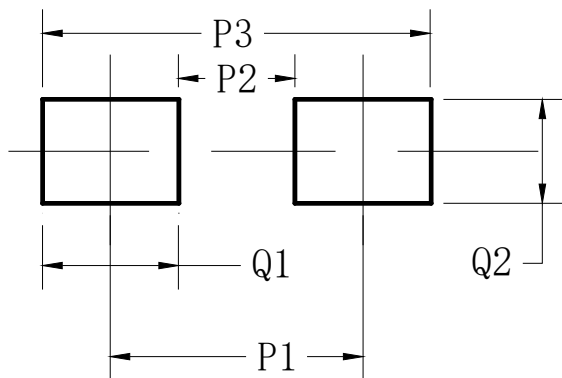
DO-214AC(SMA)



Dimensions in millimeters

DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.00	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41
G	0.05	0.20
H	0.15	0.31
I	1.70	2.10

Suggested Pad Layout



DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
P3	6.50
Q1	2.50
Q2	1.70

Note:

1. Controlling dimension: in/millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.