Compact Technology

B120 thru B1200

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **20** to **200** Volts
FORWARD CURRENT - **1.0** Amperes

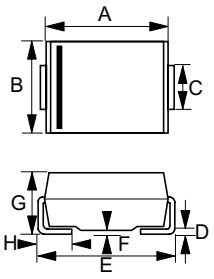
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

- Case : JEDEC SMA molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.062 grams
- Mounting position : Any

SMA



SMA		
DIM.	MIN.	MAX.
A	3.99	4.50
B	2.54	2.79
C	1.32	1.47
D	0.15	0.31
E	4.93	5.28
F	0.05	0.127
G	1.98	2.29
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	B120	B130	B140	B150	B160	B180	B1100	B1150	B1200	UNIT
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	I_F	1.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0									A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	0.50			0.70		0.85		0.87	0.90	V
Maximum DC Reverse Current @ TA=25°C	I_R	0.5					0.2				mA
at Rated DC Blocking Voltage @ TA=100°C		10.0					5.0				
Typical Junction Capacitance	C_J	70			60		50		35		pF
Typical Thermal Resistance	$R_{\theta JA}$	70									℃/W
Operating Temperature Range	T_J	-55 to +125									℃
Storage Temperature Range	T_{STG}	-55 to +150									℃

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

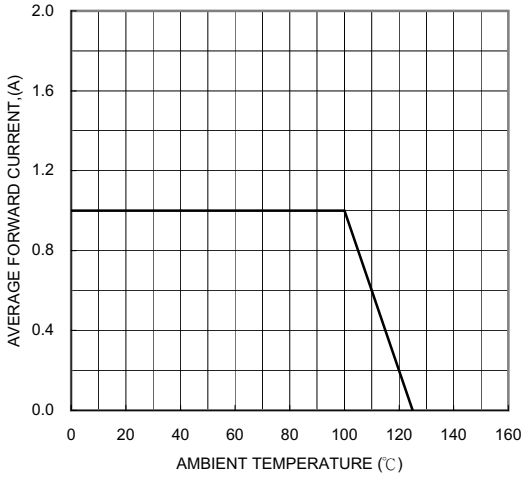


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

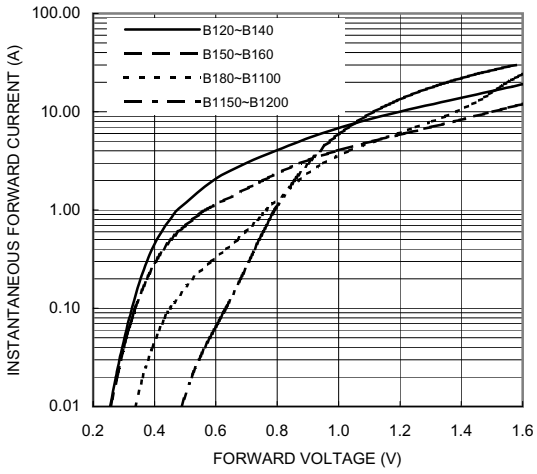


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

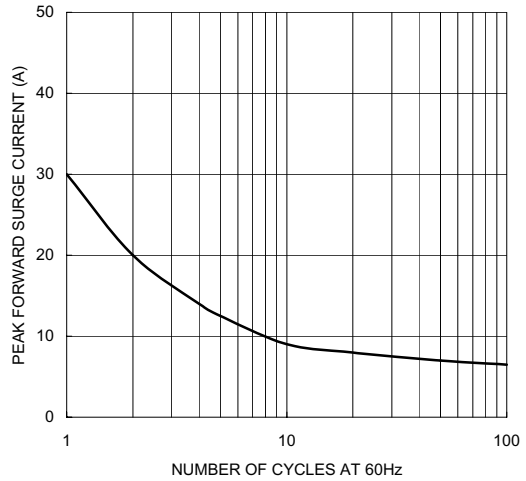


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

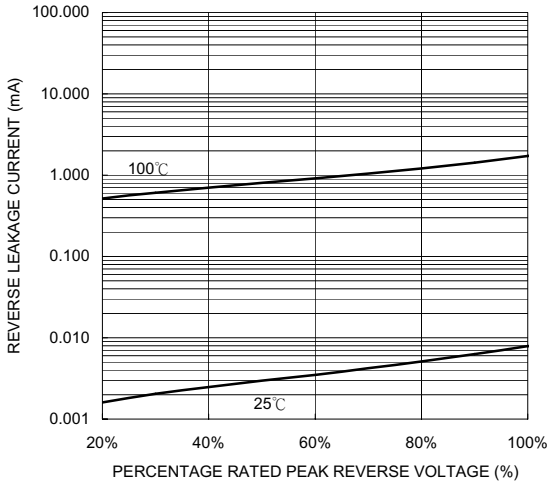


FIG. 5-TYPICAL JUNCTION CAPACITANCE

