

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 20 to 200 Volts
FORWARD CURRENT - 5.0 Amperes

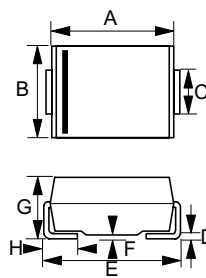
FEATURES

- 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 SMC 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°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	B520A	B530A	B540A	B550A	B560A	B580A	B5100A	B5150A	B5200A	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	5.0									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100.0									A	
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	0.55			0.70		0.85	0.87	0.90		V	
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	0.5					0.2					mA
		10.0					5.0					
Typical Junction Capacitance	C_J	300			210		170	150	110		pF	
Typical Thermal Resistance	$R_{\theta JA}$	60									°C/W	
Operating Temperature Range	T_J	-55 to +125					-55 to +150					°C
Storage Temperature Range	T_{STG}	-55 to +150									°C	

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

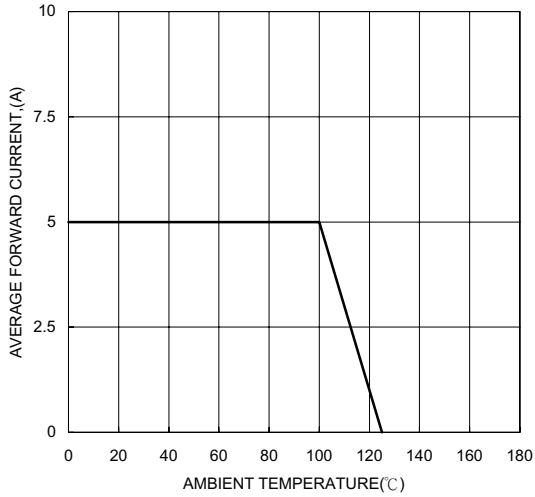


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

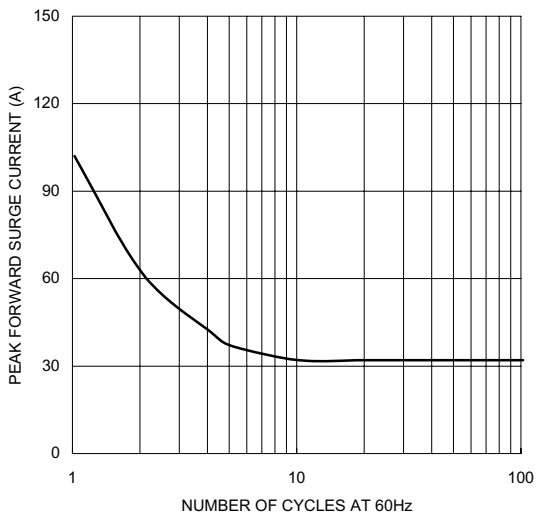


FIG. 5-TYPICAL JUNCTION CAPACITANCE

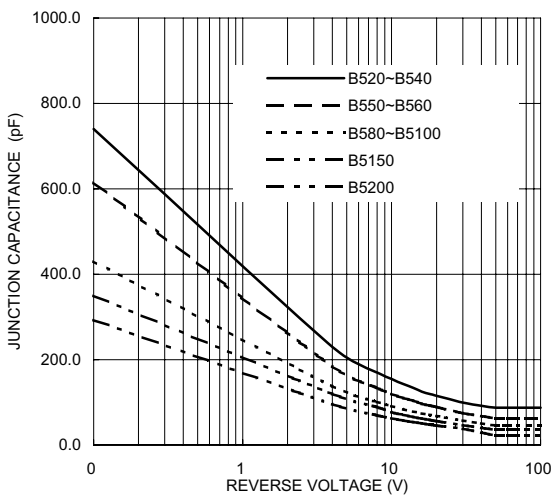


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

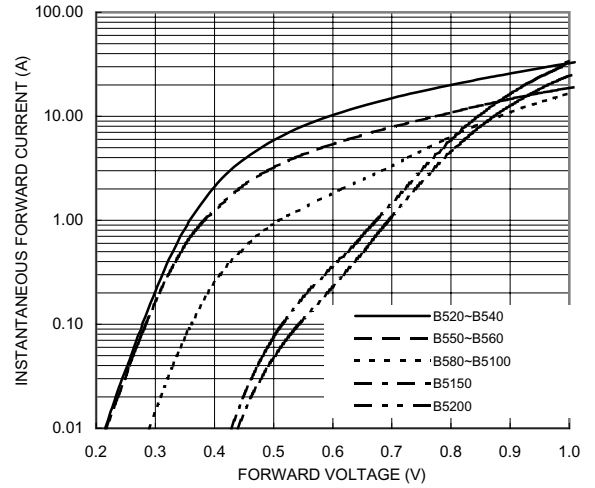


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

