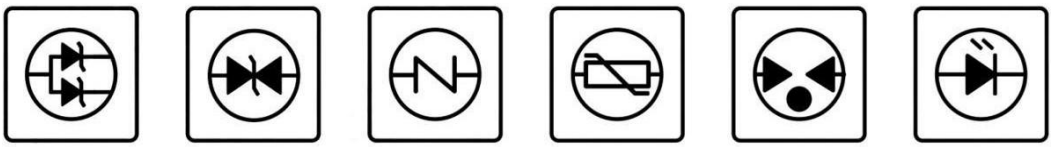
MSKSEMI 美森科
SEMICONDUCTOR



B520C-13-F-MS THRU B5100C-13-F-MS

Product specification

B520C-13-F-MS THRU B5100C-13-F-MS

VOLTAGE RANGE: 20 - 100V
CURRENT: 5.0 A

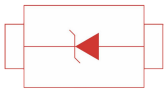
FEATURES

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
  Guard Ring Die Construction
- Plastic Case Material has UL Flammability
  Classification Rating 94V-O

MECHANICAL DATA

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable
  per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.21 grams (approx.)

Reference News

SMC	Schematic Diagram
	

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Marking

B520C-13-F-MS	B530C-13-F-MS	B540C-13-F-MS	B550C-13-F-MS
MSKSEMI B520C	MSKSEMI B530C	MSKSEMI B540C	MSKSEMI B550C
B560C-13-F-MS	**B580C-13-F-MS**	**B590C-13-F-MS**	**B5100C-13-F-MS**
MSKSEMI B560C	MSKSEMI B580C	MSKSEMI B590C	MSKSEMI B5100C

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	B520C-13-F-MS	B530C-13-F-MS	B540C-13-F-MS	B550C-13-F-MS	B560C-13-F-MS	B580C-13-F-MS	B590C-13-F-MS	B5100C-13-F-MS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	80	90	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	64	71	V
Average Rectified Output Current @T_L = 90°C	I_O	5.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175								A
Forward Voltage @I_F = 5.0A	V_{FM}	0.50			0.75		0.85			V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 20								mA
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	14 50								°C/W
Operating Temperature Range	T_j	-65 to +125								°C
Storage Temperature Range	T_{STG}	-65 to +150								°C

Note: 1. Mounted on P.C. Board with 14mm^2 copper pad area.

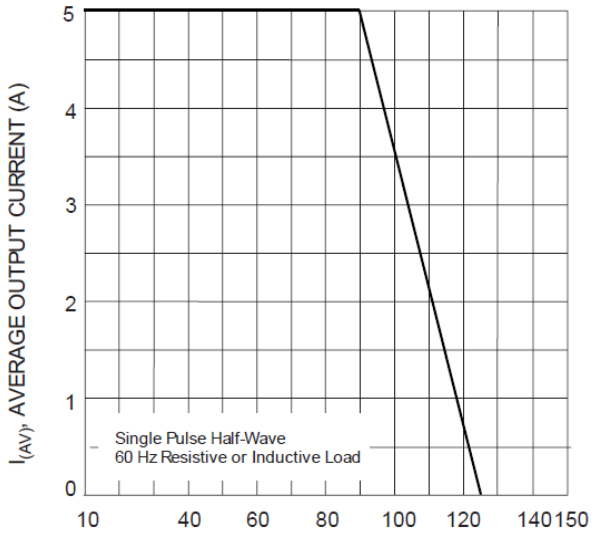


Fig. 1 Forward Current Derating Curve

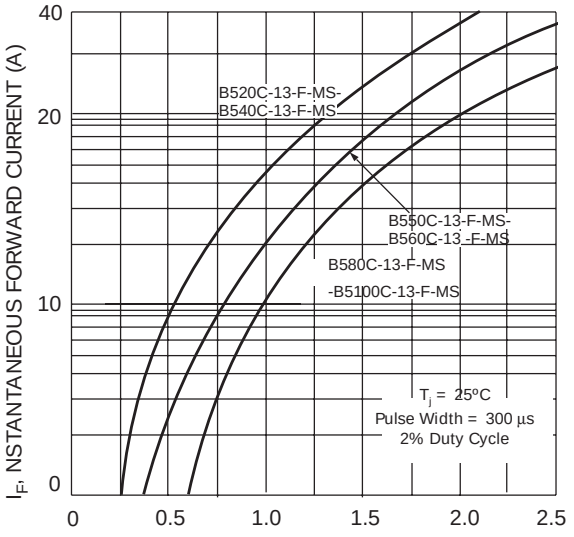


Fig. 2 Typical Forward Characteristics

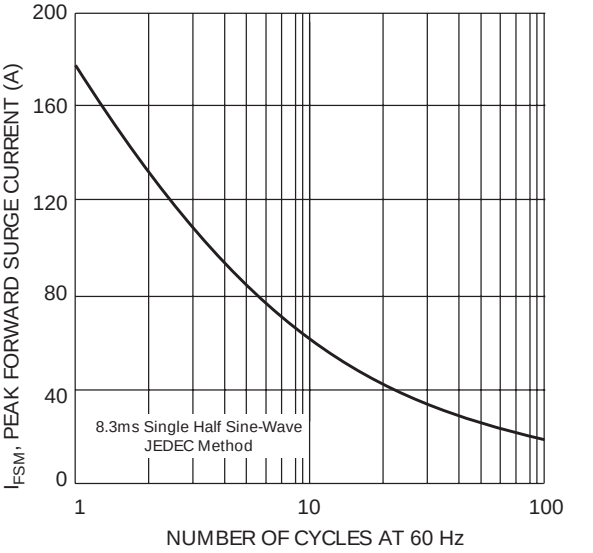


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

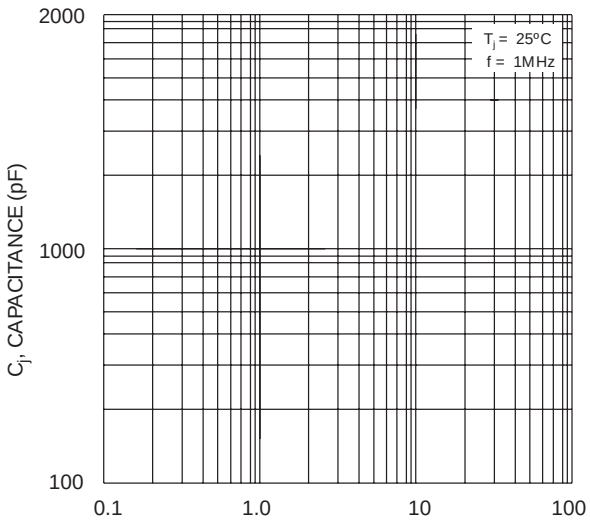
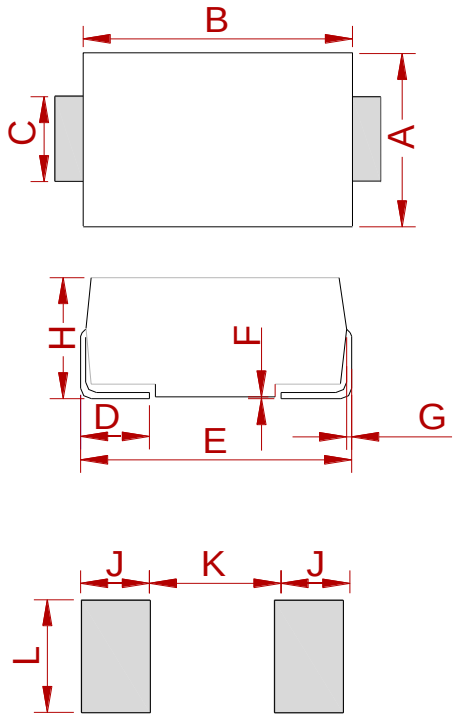


Fig. 4 Typical Junction Capacitance

PACKAGE MECHANICAL DATA



DO-214AB (SMC)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.75	6.25	0.226	0.246
B	6.90	7.40	0.272	0.291
C	2.75	3.25	0.108	0.128
D	0.95	1.52	0.037	0.060
E	7.70	8.20	0.303	0.323
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

REELSPECIFICATION

P/N	PKG	QTY
B520C-13-F-MS THRU B5100C-13-F-MS	SMC	3000

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