MSKSEMI 美森科
SEMICONDUCTOR

ESD TVS TSS MOV GDT PLED

B120-13-F(MS) THRU B1200-13-F(MS)

Product specification

Features

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- TheplasticmaterialcarriesULrecognition94V-0
- For use in lowvoltage,high frequency inverters,free
- wheeling,and polarity protection applications

Mechanical Data

- Case:JEDECSMAmoldedplastic
- Polarity : Color band denotes cathode
- Weight:0.062grams
- Mounting position : Any

Reference News

Outline	Marking		
			
	B120-13-F(MS)	B130-13-F(MS)	B140-13-F(MS)
			
	B150-13-F(MS)	B160-13-F(MS)	B180-13-F(MS)
			
SMA	B1100-13-F(MS)	B1150-13-F(MS)	B1200-13-F(MS)

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	B120-13-F(MS)	B130-13-F(MS)	B140-13-F(MS)	B150-13-F(MS)	B160-13-F(MS)	B180-13-F(MS)	B1100-13-F(MS)	B1150-13-F(MS)	B1200-13-F(MS)	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 DCReverse Current@TA=25°C	I_R	0.5					0.2				mA
atRated DCBlockingVoltage @TA=100°C		10.0					5.0				
Typical Junction Capacitance	C_J	70			60		50		35		pF
Typical Thermal Resistance	$R_{θJA}$	70									℃/W
Operating Temperature Range	T_J	-55 to +125									℃
Storage Temperature Range	T_{STG}	-55 to +150									℃

RATINGS AND CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

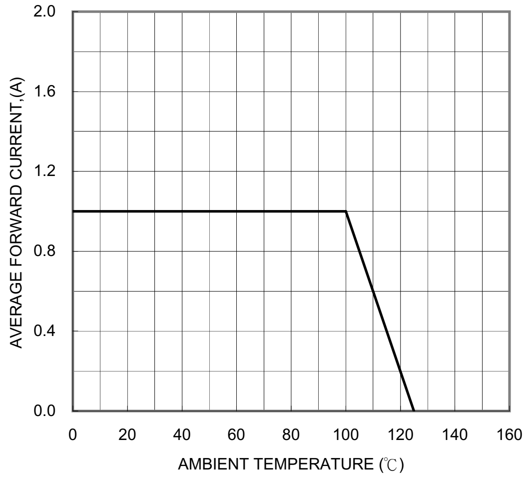


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

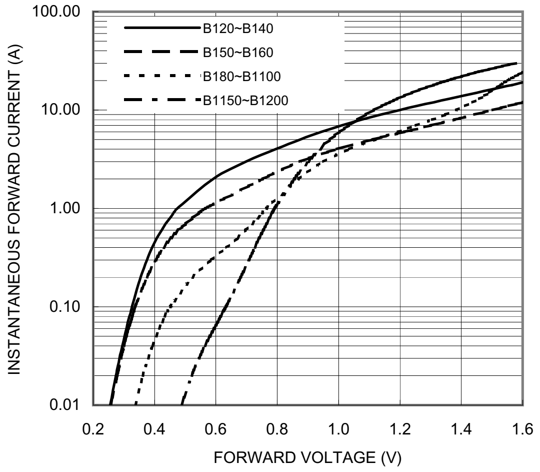


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

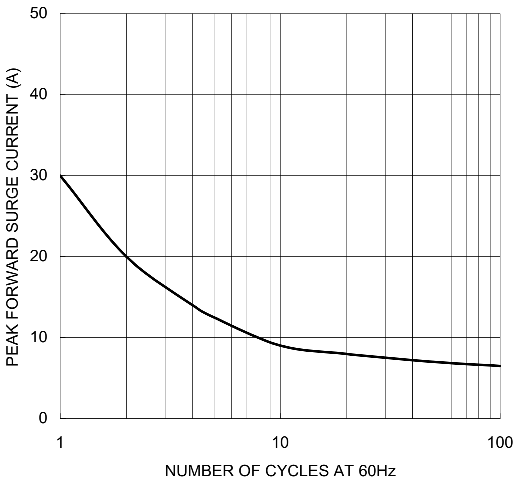


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

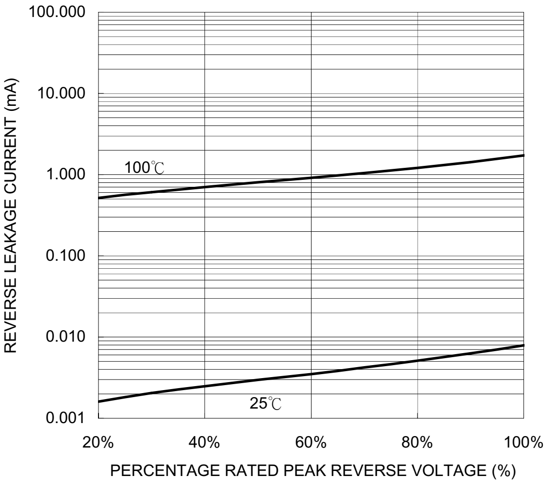
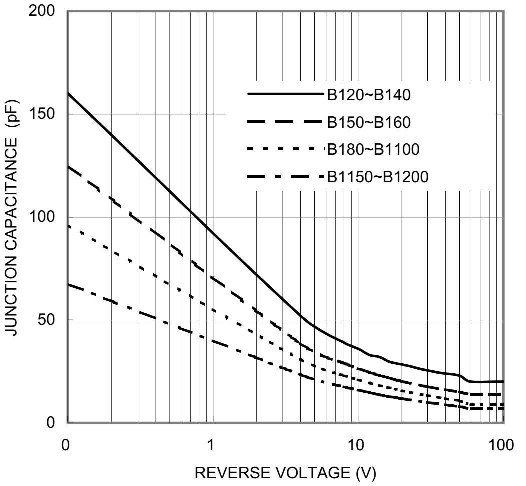
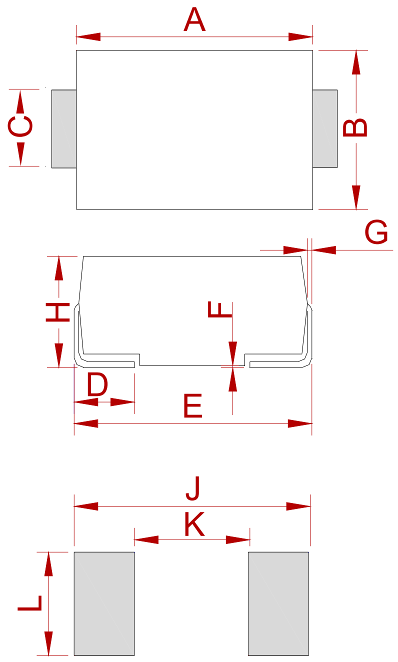


FIG. 5-TYPICAL JUNCTION CAPACITANCE



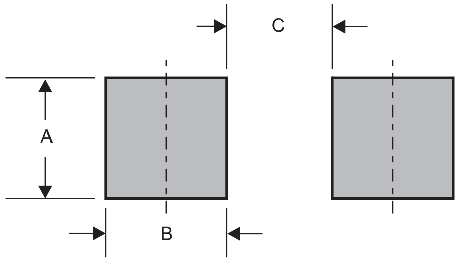
PACKAGE MECHANICAL DATA



DO-214AC (SMA)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.65	0.167	0.183
B	2.50	2.90	0.098	0.114
C	1.35	1.65	0.053	0.065
D	0.76	1.52	0.030	0.060
E	4.93	5.28	0.194	0.208
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	1.98	2.41	0.078	0.095
J	6.50		0.256	
K		2.30		0.090
L	1.70		0.067	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMA	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)

REELSPECIFICATION

P/N	PKG	QTY
B120-13-F(MS) THRU B1200-13-F(MS)	SMA	2000

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