



B120-B160

Schottky Barrier Rectifiers

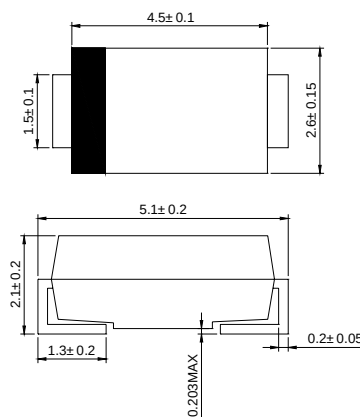
REVERSE VOLTAGE: 20 --- 60 V

CURRENT: 1.0 A

DO - 214AC(SMA)

Features

- ◇ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief
- ◇ Metal silicon junction, majority carrier conduction
- ◇ High surge capability
- ◇ Low power loss, high efficiency
- ◇ For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- ◇ Guardring for overvoltage protection
- ◇ High temperature soldering guaranteed: 250°C/10 seconds at terminals



Dimensions in millimeters

Mechanical Data

- ◇ Case: JEDEC DO-214AC, molded plastic over passivated chip
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.002 ounces, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Device marking code		B120	B130	B140	B150	B160	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V _{RWS}	14	21	28	35	42	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	V
Maximum average forw ord rectified current at T _L (SEE FIG.1)	I _(AV)	1.0					A
Peak forw ard surge current 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	I _{FSM}	30.0					A
Maximum instantaneous forw ard voltage at 1.0A(NOTE.1)	V _F	0.5			0.7		V
Maximum DC reverse current (NOTE.1) @T _A =25°C	I _R	0.5					mA
at rated DC blockjng voltage @T _A =100°C		10.0					
Typical thermal resitance (NOTE. 2)	R _{θJA}	88.0					°C/W
	R _{θJL}	20.0					
Storage temperature range Operating junction and storage temperature range	T _j	- 55 --- +125					°C
Storage temperature range	T _{STG}	- 55 --- +150					°C

NOTE: 1. Pulse test: 300 μs pulse width, 1% duty cycle

2. P.C.B. mounted with 0.2"X0.2"(5.0X5.0mm²) copper pad areas

Ratings AND Characteristic Curves

FIG.1 – FORWARD DERATING CURVE

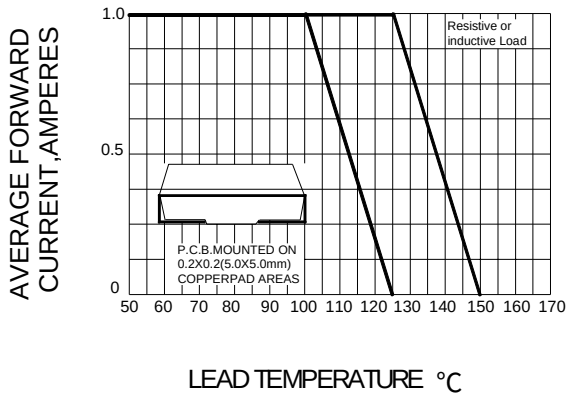


FIG.2– PEAK FORWARD SURGE CURRENT

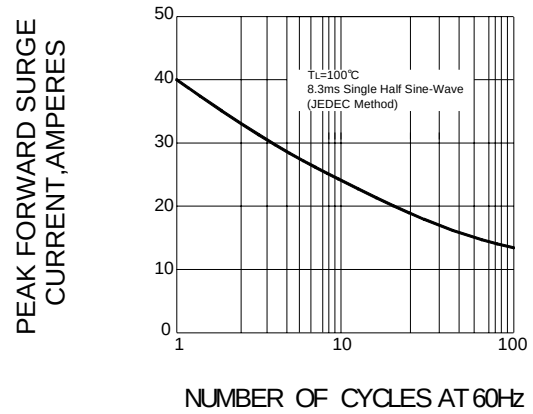


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

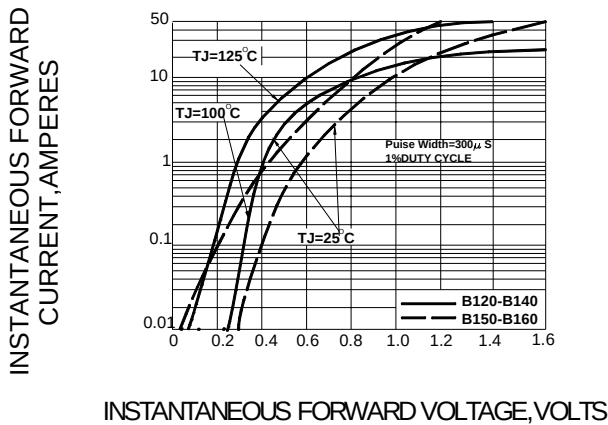


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

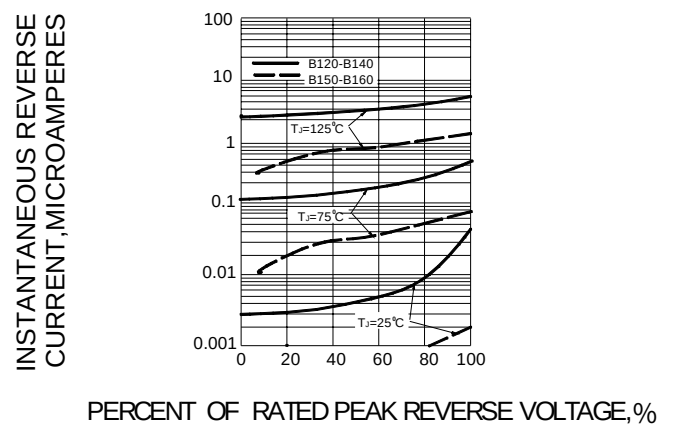


FIG.5–TYPICAL JUNCTION CAPACITANCE

