LITE ON SEMICONDUCTOR

B2150A

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 150 Volts FORWARD CURRENT - 2.0 Amperes

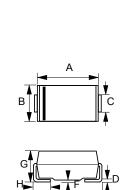
SMA

FEATURES

- For surface mounted applications
- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Very Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



- Case : Molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.002 ounces, 0.064 grams



SMA				
MIN.	MAX.			
4.06	4.57			
2.29	2.92			
1.27	1.63			
0.15	0.31			
4.83	5.59			
0.05	0.20			
2.01	2.40			
0.76	1.52			
All Dimensions in millimeter				
	MIN. 4.06 2.29 1.27 0.15 4.83 0.05 2.01 0.76			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25° C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	B2150A	l	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	150		V
Maximum RMS Voltage	VRMS	105		V
Maximum DC Blocking Voltage	VDC	150		V
Maximum Average Forward Rectified Current @Tc=125°C	l(AV)	2.0		А
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load	IFSM	60		A
Maximum Forward Voltage at@TJ = 25°C2.0A DC@TJ = 125°C	VF	0.82 0.67		V
	IR	1.5 1.5		uA mA
Typical Junction Capacitance (Note 1)	CJ	90		pF
Typical Thermal Resistance (Note 2)	Rejc	30	0	°C/W
Operating Temperature Range	TJ	-55 to +175		°C
Storage Temperature Range	Tstg	-55 to +175		°C
IOTES : 1.Measured at 1.0MHz and applied rev	erse voltag	ge of 4.0V DC.	REV. 2, Oct-2010, KSHA	415

2. Thermal Resistance Junction to Lead.

RATING AND CHARACTERISTIC CURVES B2150A

FIG.1 - FORWARD CURRENT DERATING CURVE FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT PEAK FORWARD SURGE CURRENT, AMPERES 60 AVERAGE FORWARD CURRENT AMPERES 50 2.0 40 30 1.0 20 Pulse Width 8.3ms Single Half-Sine-Wave 10 RESISTIVE OR INDUCTIVE LOAD 0 0 20 50 100 50 150 175 25 75 100 125 LEAD TEMPERATURE ,°C NUMBER OF CYCLES AT 60Hz FIG.3 - TYPICAL FORWARD CHARACTERISTICS FIG.4 - TYPICAL JUNCTION CAPACITANCE 100 1000 INSTANTANEOUS FORWARD CURRENT, (A) CAPACITANCE, (pF) 10 100 10 1 TJ = 25℃ TJ = 25℃ F= 1MHz PULSEWIDTH:300us 1 0.1 0.1 10 100 1 2 0 0.5 1 1.5 INSTANTANEOUS FORWARD VOLTAGE, VOLTS **REVERSE VOLTAGE**, VOLTS FIG.5 - TYPICAL REVERSE CHARACTERISTICS 1000 TJ = 150°C INSTANTANEOUS REVERSE CURRENT, (uA) TJ = 125 °C 100 TJ = 100℃ 10 1 0.1 TJ = 25% 0.01 0 20 40 60 80 100 120 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

LITEON



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