

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 100Volts  
FORWARD CURRENT – 2.0 Ampere**

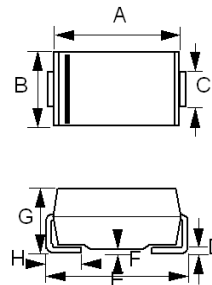
**FEATURES**

- 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

**MECHANICAL DATA**

- Case: JEDEC DO-214AC
- Case Material: Plastic material, UL flammability classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Polarity indicator: Cathode Band
- Component in accordance to RoHs 2002/95/EC

**SMA**



SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	2.01	2.40
H	0.76	1.52
All Dimensions in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER			SYMBOL	B2100A		UNIT
Device marking code			Note	B2100A		---
Maximum Repetitive Peak Reverse Voltage			V <sub>RRM</sub>	100		V
Maximum RMS Voltage			V <sub>RMS</sub>	70		V
Average Rectified Output Current @T <sub>L</sub> =110°C			I <sub>(AV)</sub>	2.0		A
Peak Forward Surge Current 8.3ms single half sine-wave			I <sub>FSM</sub>	50		A
Typical junction capacitance (1)			C <sub>J</sub>	70		pF
Operating junction and storage temperature range			T <sub>STG</sub> ,T <sub>J</sub>	-65 to +150		°C
PARAMETER	TEST CONDITIONS		SYMBOL	Min.	Max.	UNIT
Breakdown voltage	IR=500uA	Tj=25°C	V <sub>B</sub>	100	---	V
Forward Voltage (2)	IF=2.0A	Tj=25°C Tj=100°C	V <sub>F</sub>	--- ---	0.79 0.69	V
Leakage Current	VR=100V	Tj=25°C Tj=100°C	I <sub>R</sub>	--- ---	0.5 15	mA
THERMAL CHARACTERISTIC			SYMBOL	Typical		UNIT
Typical thermal resistance_Junction to Case (3)			R <sub>θJC</sub>	30		°C/W
Typical thermal resistance_Junction to Ambient			R <sub>θJA</sub>	90		°C/W
Typical thermal resistance_Junction to Lead			R <sub>θJL</sub>	35		°C/W

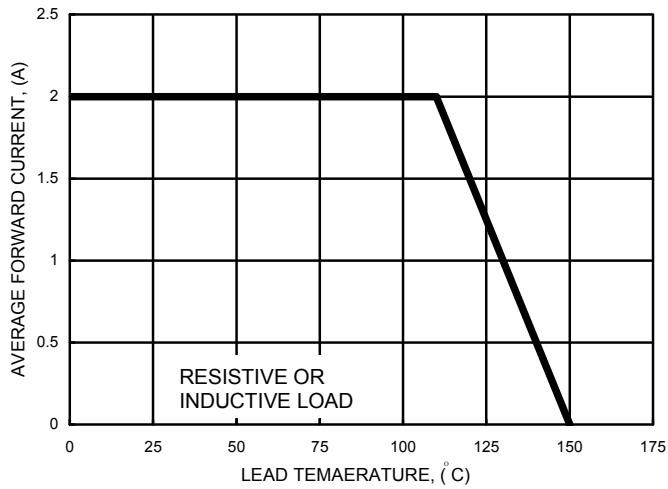
**Note :**

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) 300us Pulse width, 2% Duty cycle.
- (3) Thermal Resistance test performed in accordance with JESD-51.  
(Unit mounted on 0.75t glass-epoxy substrate with 2x3 mm copper pad.)

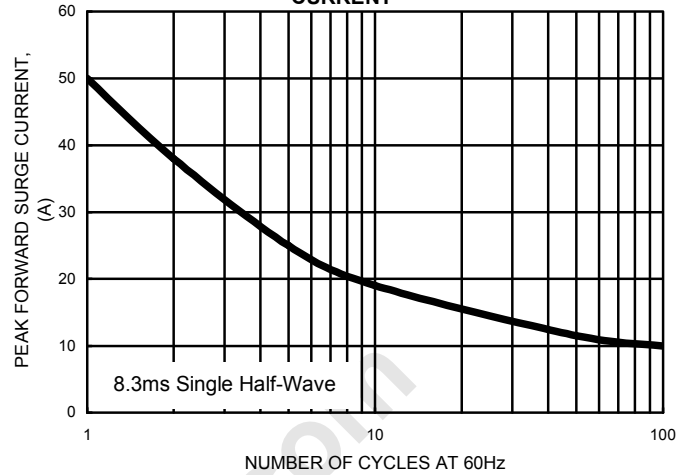
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**RATING AND CHARACTERISTIC CURVES**  
**B2100A**

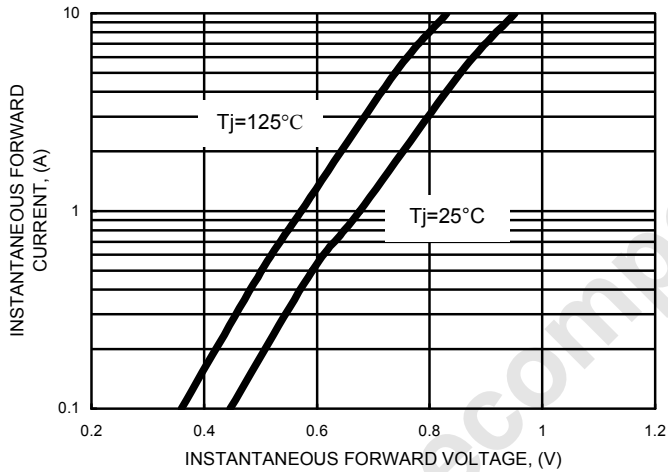
**FIG.1- FORWARD CURRENT DERATING CURVE**



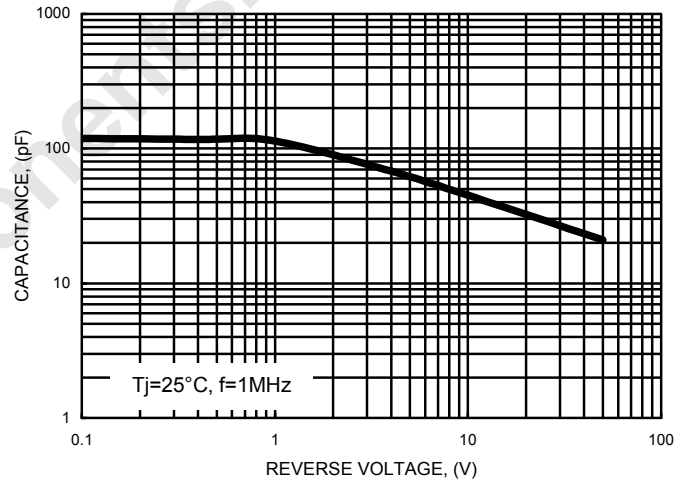
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



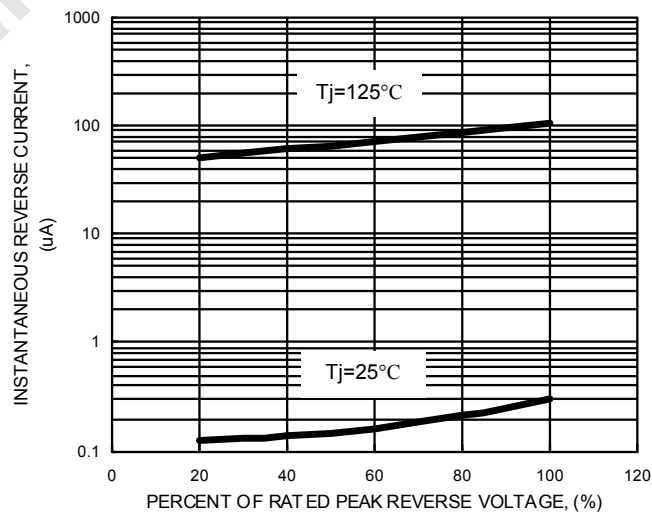
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



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