

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIER**

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

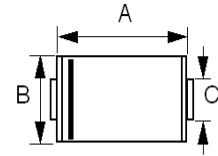
**FEATURES**

- Very Low forward voltage drop
- High current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

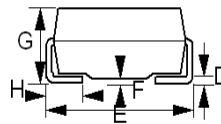
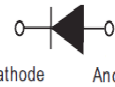
**MECHANICAL DATA**

- Case: JEDEC DO-214AC
- Case Material: Molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Polarity indicator: Cathode Band

**SMA**



COLOR BAND DENOTES CATHODE



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.

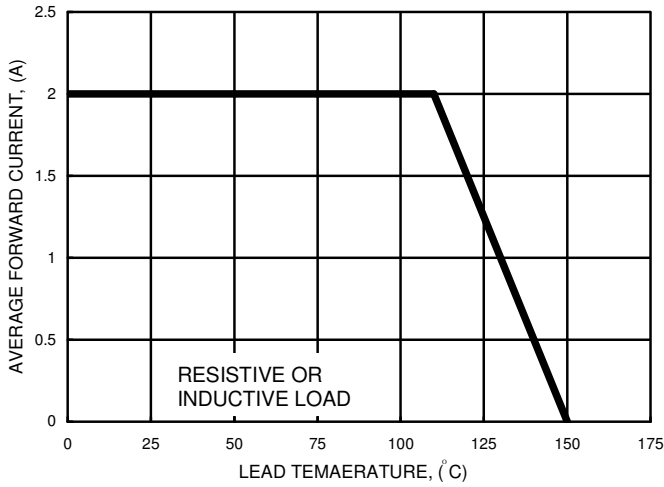
PARAMETER	SYMBOL	B2100A	UNIT		
Device marking code	Note	B2100A	---		
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	V		
Maximum RMS Voltage	V <sub>RMS</sub>	70	V		
Average Rectified Output Current @T <sub>L</sub> =110°C	I <sub>(AV)</sub>	2.0	A		
Peak Forward Surge Current 8.3ms single half 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,TJ</sub>	-65 to +150	°C		
PARAMETER	TEST CONDITIONS	SYMBOL	Min.	Max.	UNIT
Breakdown voltage	I <sub>R</sub> =20uA T <sub>j</sub> =25°C	V <sub>B</sub>	100	---	V
Forward Voltage (2)	I <sub>F</sub> =2.0A T <sub>j</sub> =25°C T <sub>j</sub> =100°C	V <sub>F</sub>	---	0.79 0.69	V
Leakage Current	V <sub>R</sub> =100V T <sub>j</sub> =25°C T <sub>j</sub> =100°C	I <sub>R</sub>	---	0.02 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 :**

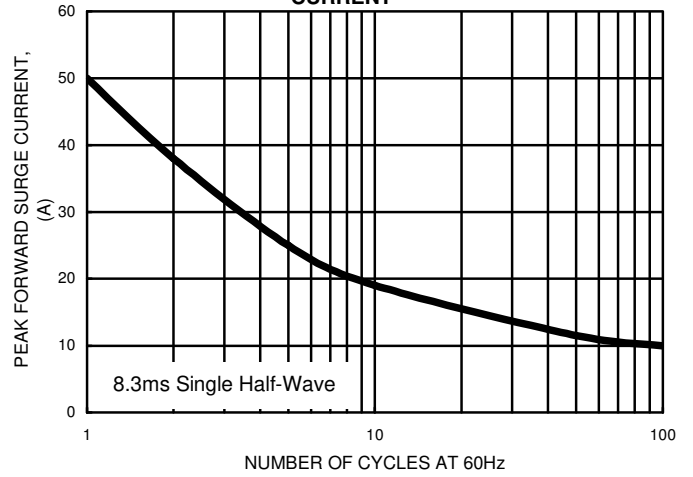
- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) 300us Pulse width, 2% Duty cycle.
- (3) Thermal Resistance test performed in accordance with JESD-51.  
(Unit mounted on 0.75t glass-epoxy substrate with 2x3 mm copper pad.)

**REV. 7, Jul-2017, KSHA15**

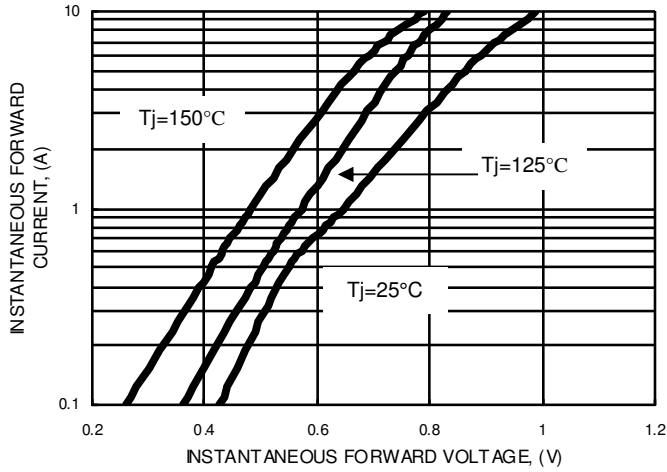
**FIG.1- FORWARD CURRENT DERATING CURVE**



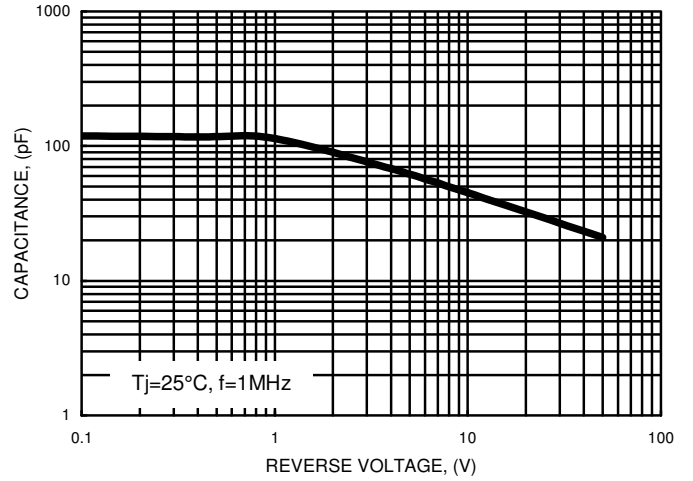
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



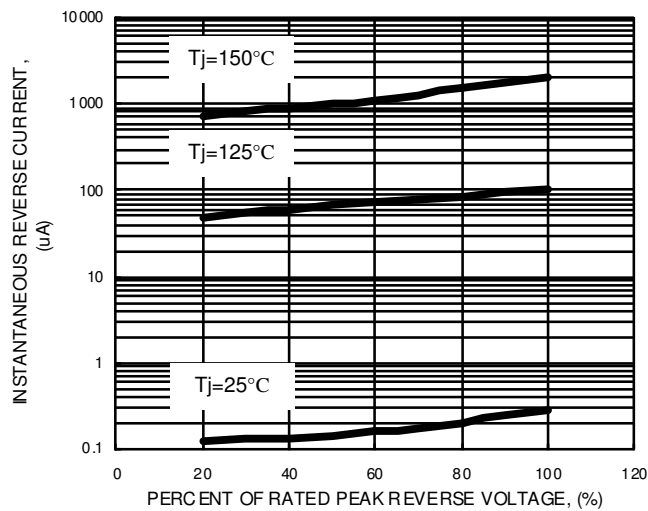
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



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