FB1100M

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE – 100Volts FORWARD CURRENT – 1.0 Ampere

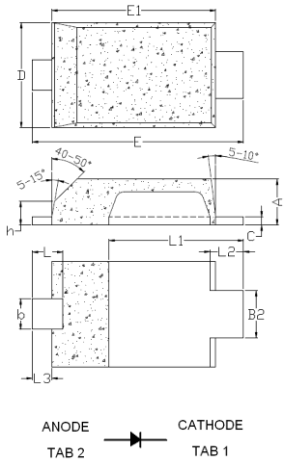
FEATURES

- Very low profile package – 0.80mm
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: JEDEC DO-222AA
- Package Material: "Green" molding compound, UL flammability classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Component in accordance to RoHs 2002/95/EC

Mite Flat(DO-222AA)



DO-222AA		
DIM.	MIN.	MAX.
A	0.80	0.95
b	0.40	0.65
b2	0.70	1.00
C	0.10	0.25
D	1.75	2.05
E	3.60	3.90
E1	2.80	3.10
h	0.35	0.50
L	0.50	0.80
L1	2.10	2.60
L2	0.45	0.75
L3	0.20	0.50
All Dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	FB1100M	UNIT
Device marking code	Note	B1B	---
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Average Rectified Output Current @T_L=145°C	$I_{(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave	I_{FSM}	40	A
Operating junction and storage temperature range	T_{STG},T_J	-55 to +175	°C

PARAMETER	TEST CONDITIONS		SYMBOL	Min.	Max.	UNIT
Forward Voltage (Note 4)	I_F=1.0A I_F=2.0A	T_j=25°C	V_F	--- ---	0.77 0.86	V
Leakage Current (Note 4)	V_R=100V	T_j=25°C T_j=125°C	I_R	--- ---	10 6	uA mA

THERMAL CHARACTERISTIC	SYMBOL	Typical	UNIT
Typical junction capacitance (Note 5)	C_J	80	pF
Typical thermal resistance_Junction to Case (Note 6)	$R_{\Theta JC}$	60	°C/W
Typical thermal resistance_Junction to ambient	$R_{\Theta Ja}$	130	°C/W
Typical thermal resistance_Junction to Lead (Note 6)	$R_{\Theta JL}$	35	°C/W

Notes :

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us Pulse width, 2% Duty cycle
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal Resistance test performed in accordance with JESD-51. Unit mounted on 0.75t glass-epoxy substrate with foot print copper pad. $R_{\Theta JL}$ is measured at the lead of cathode band, $R_{\Theta JC}$ is measured at the top centre of body.

RATING AND CHARACTERISTIC CURVES
FB1100M

FIG.1- FORWARD CURRENT DERATING CURVE

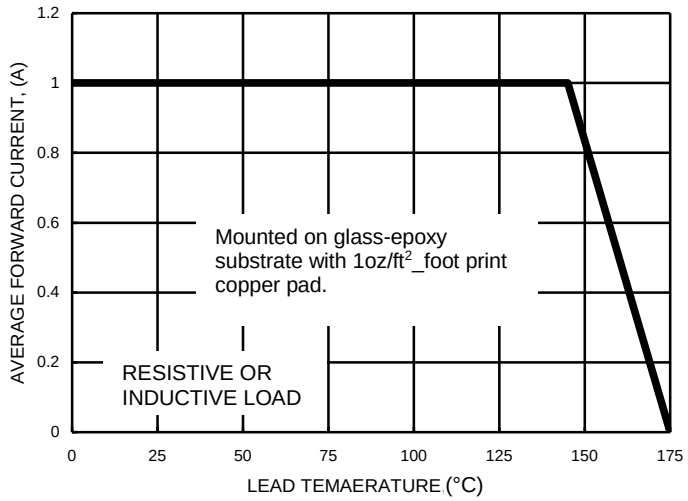


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

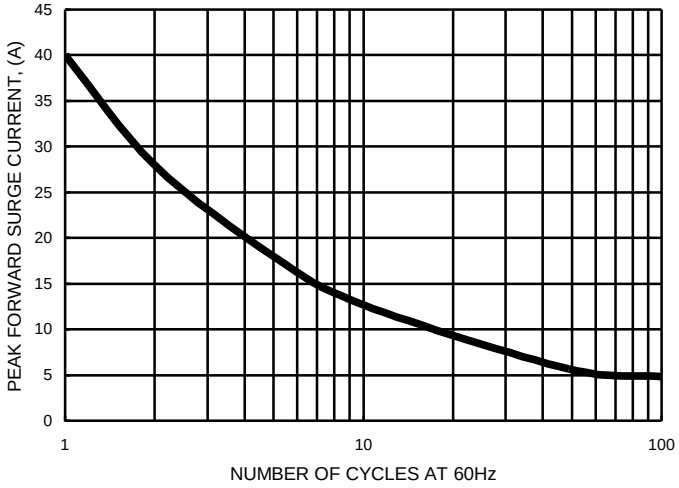


FIG.3- TYPICAL FORWORD CHARACTERISTICS

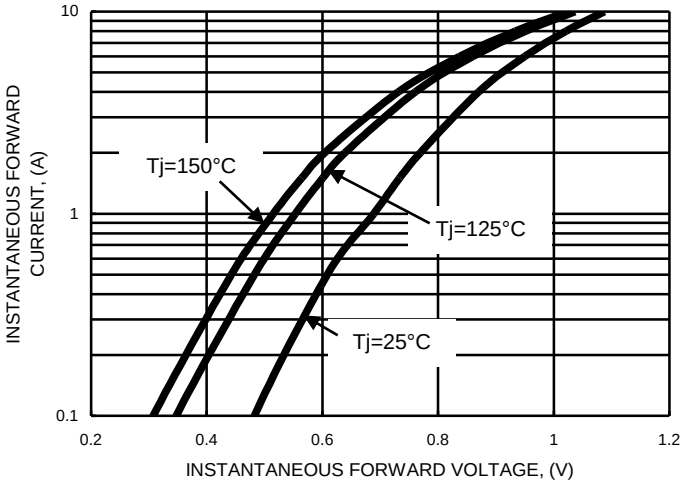


FIG.4- TYPICAL JUNCTION CAPACITANCE

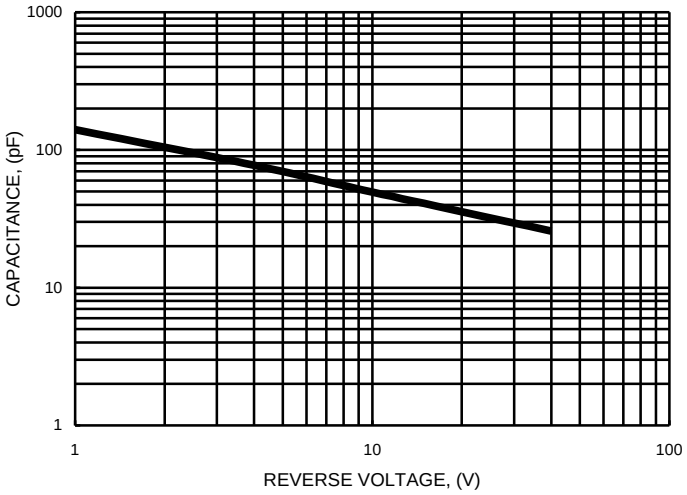


FIG.5- TYPICAL REVERSE CHARACTERISTICS

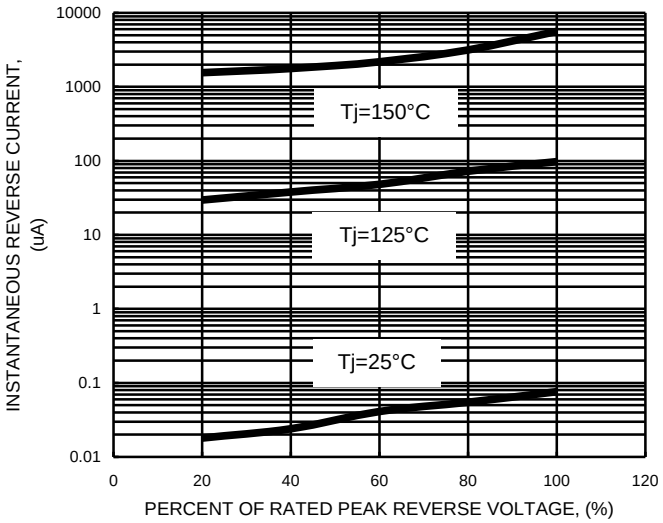
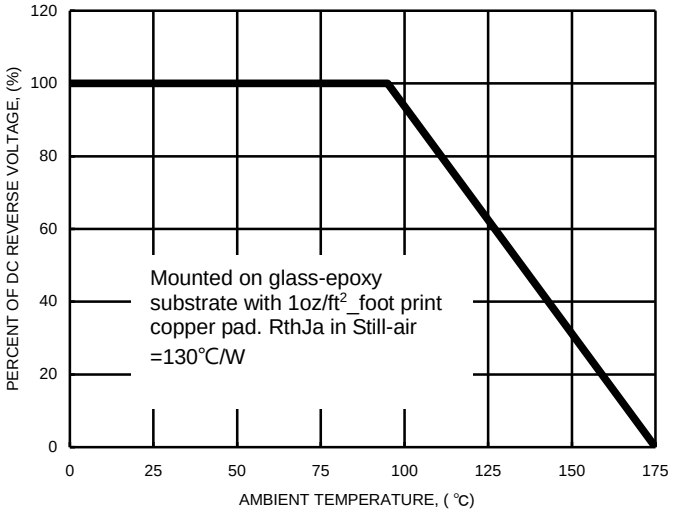


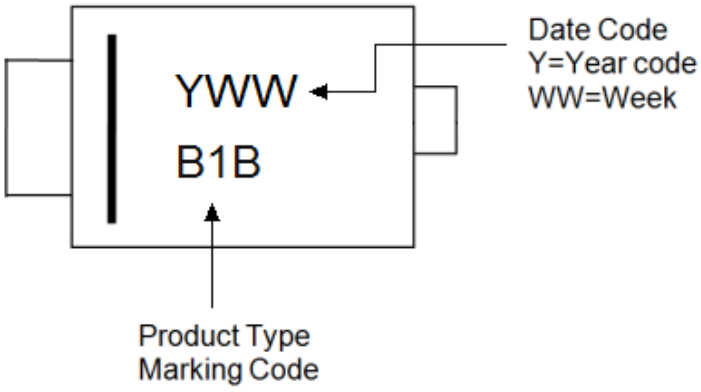
FIG.6- DC REVERSE VOLTAGE DERATING CURVE



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
FB1100M	DO-222AA	12000	Tape & Reel

Marking Information :



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