

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 40Volts  
FORWARD CURRENT – 3.0 Ampere**

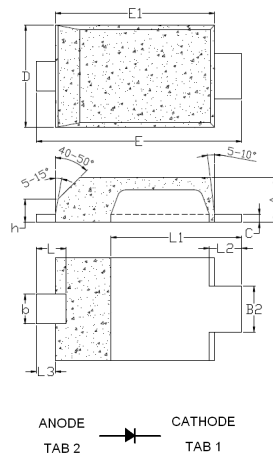
**FEATURES**

- Very low profile package – 0.80mm
- High efficiency
- Low forward voltage drop, low power loss
- For use in low voltage, high frequency inverters, free wheeling, dc-to-dc converters and polarity protection applications
- ESD Capability:  
Machine Model, C (> 400 V)  
Human Body Model, 3B (> 8 kV)

**MECHANICAL DATA**

- Case: JEDEC DO-222AA
- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.)
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Reliability tested in accordance with AEC-Q101
- Component in accordance to RoHs 2002/95/EC

**Mite Flat**



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	FB330M	FB340M	UNIT	
Device marking code	Note	B33	B34	---	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	30	40	V	
Maximum RMS Voltage	$V_{RMS}$	21	28	V	
Maximum DC Blocking Voltage	$V_{DC}$	30	40	V	
Average Rectified Output Current @ $T_L=115^\circ\text{C}$ , (Fig.1)	$I_{(AV)}$	3.0		A	
Peak Forward Surge Current 8.3ms single half sine-wave	$I_{FSM}$	50		A	
Operating junction and storage temperature range	$T_{STG}, T_J$	-55 to +150		°C	
PARAMETER	TEST CONDITIONS	SYMBOL	Typ.	Max.	UNIT
Forward Voltage (1)	$I_F=3.0A$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$V_F$	0.52 0.45	0.58 0.48	V
Leakage Current (1)	$V_{DC}=\text{Rated}$ $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	---	200 15	uA mA
THERMAL CHARACTERISTIC	SYMBOL	Typical		UNIT	
Typical junction capacitance (2)	$C_J$	135		pF	
Typical thermal resistance_Junction to Case (3)	$R_{\theta JC}$	15		°C/W	
Typical thermal resistance_Junction to Ambient(3)	$R_{\theta JA}$	85		°C/W	
Typical thermal resistance_Junction to Lead (3)	$R_{\theta JL}$	20		°C/W	

**Note :**

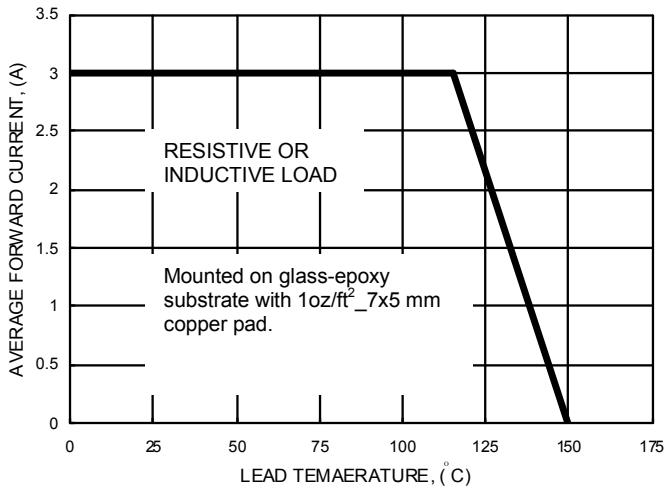
- (1) 300us Pulse width, 2% Duty cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (3) Thermal Resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft<sup>2</sup> 7x5 mm copper pad.  $R_{\theta JL}$  is measured at the lead of cathode band,  $R_{\theta JC}$  is measured at the top centre of body,  $R_{\theta Ja}$  is measured at top surface of the package to surrounding natural convection (Still air) ambient.

**REV.5, Mar-2012, KSHP01**

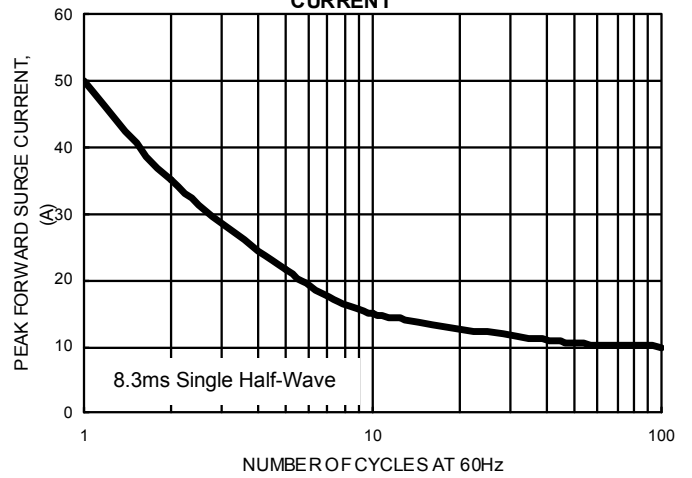
**RATING AND CHARACTERISTIC CURVES**  
**FB330M ~FB340M**



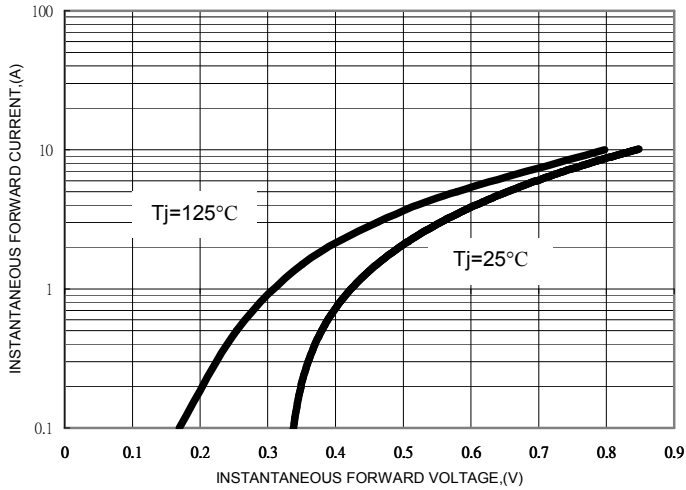
**FIG.1- FORWARD CURRENT DERATING CURVE**



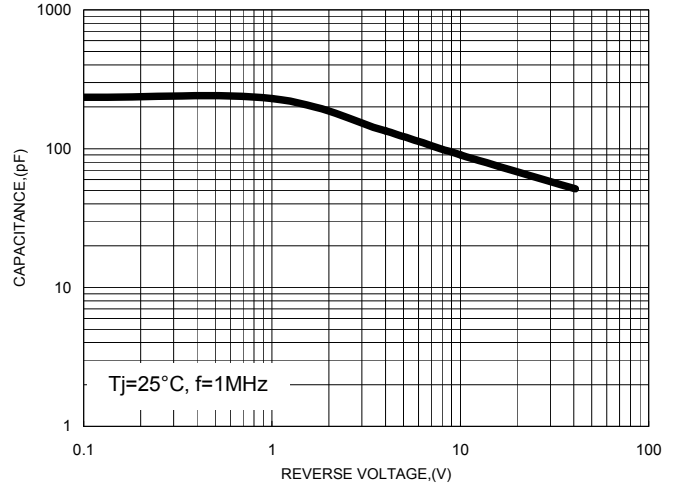
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



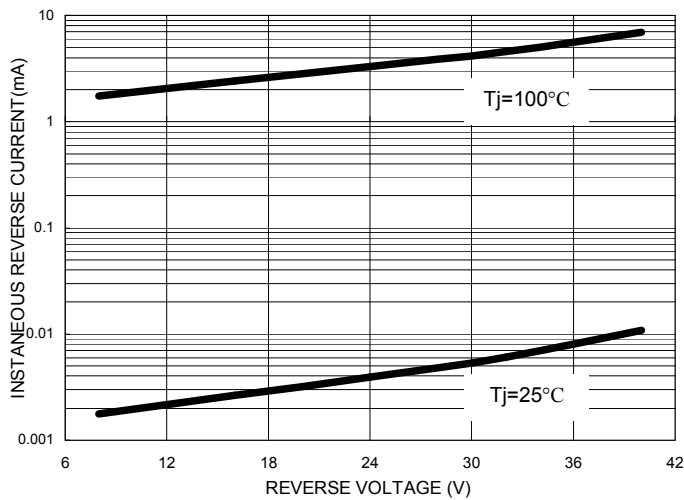
**Fig.3 TYPICAL FORWARD CHARACTERISTICS**



**Fig.4 TYPICAL JUNCTION CAPACITANCE**



**Fig.5 TYPICAL REVERSE CHARACTERISTICS**



**Fig.6 MAX DC REVERSE VOLTAGE**

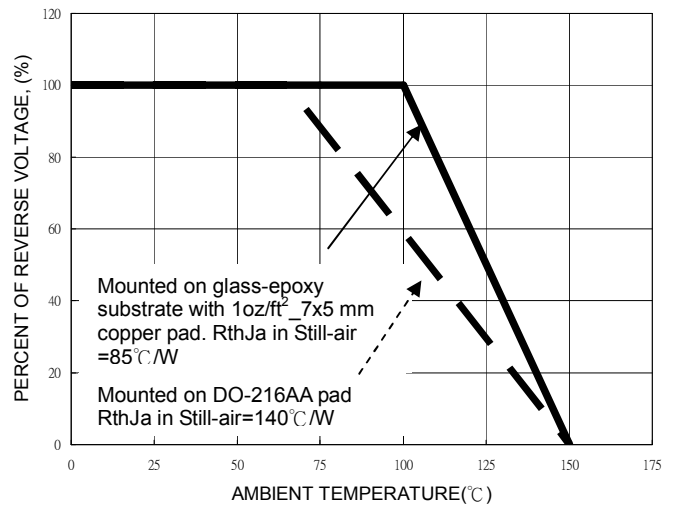
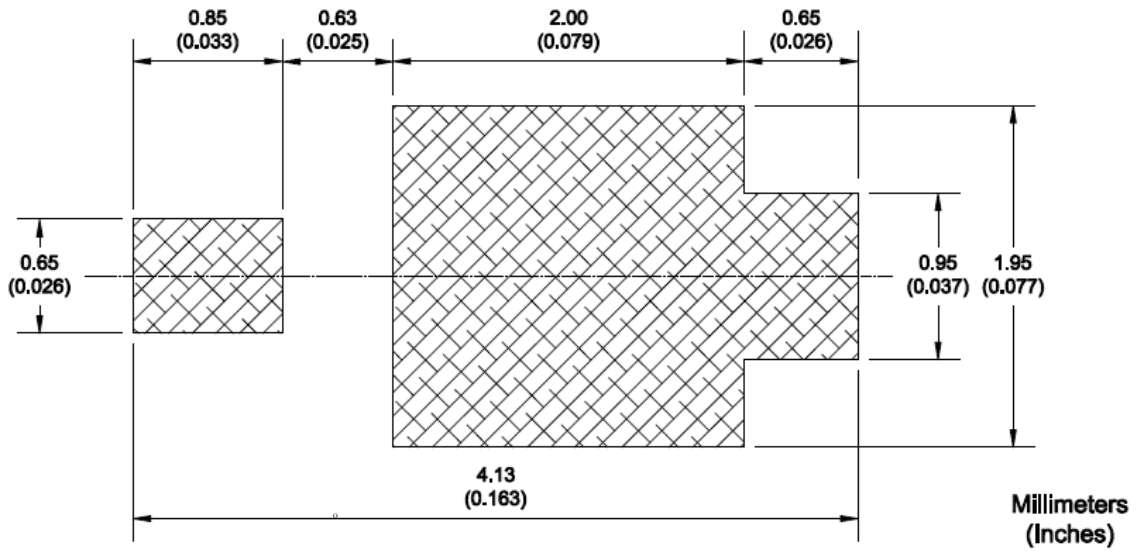


Fig.7 Recommended Foot Print of DO-222AA with Mite Flat



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