

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 40 Volts  
FORWARD CURRENT – 1.0 Ampere**

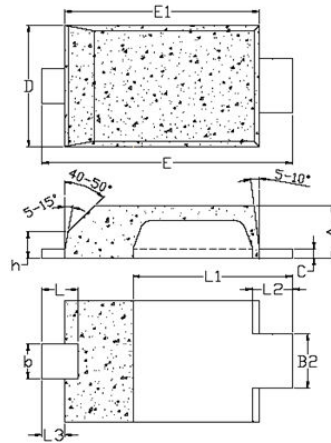
**FEATURES**

- Very low profile package – 0.80mm
- Super fast switching for high efficiency
- For surface mounted applications
- Very Low forward voltage drop and high current capability
- Low reverse leakage current

**MECHANICAL DATA**

- Case: JEDEC DO-222AA
- 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.)
- Component in accordance to RoHs 2002/95/EC

**Mite Flat**



Mite Flat		
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.

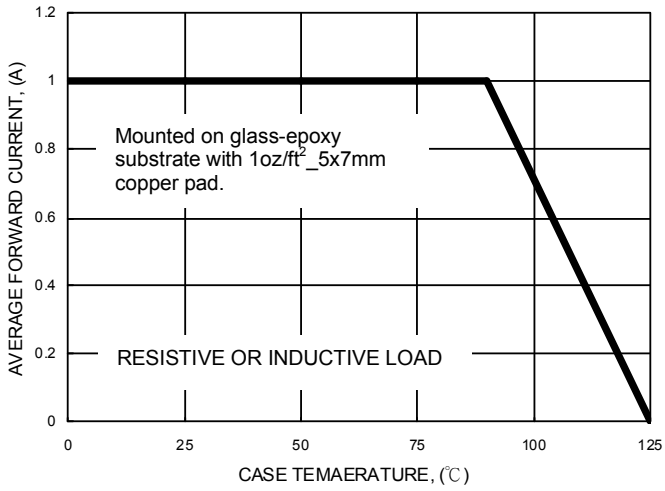
PARAMETER	SYMBOL	FB140LM	UNIT
Device marking code	Note	B1G	---
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum DC Blocking Voltage	$V_{DC}$	40	V
Average Rectified Output Current @ $T_C=90^\circ C$	$I_{(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave	$I_{FSM}$	30	A
Forward Voltage (1) IF=1.0A @ $T_j=25^\circ C$	$V_F$	0.45	V
Leakage Current (1) VDC=Rated @ $T_j=25^\circ C$ @ $T_j=100^\circ C$	$I_R$	1 15	mA
Typical junction capacitance (2)	$C_J$	65	pF
Operating junction temperature	$T_J$	-55 to +125	°C
Storage temperature range	$T_{STG}$	-55 to +150	°C
THERMAL CHARACTERISTIC	SYMBOL	Typical	UNIT
Typical thermal resistance (3, 4)	$R_{\theta JC}$	22	°C/W
	$R_{\theta JL}$	48	
	$R_{\theta Ja}$	190	

**Note :**

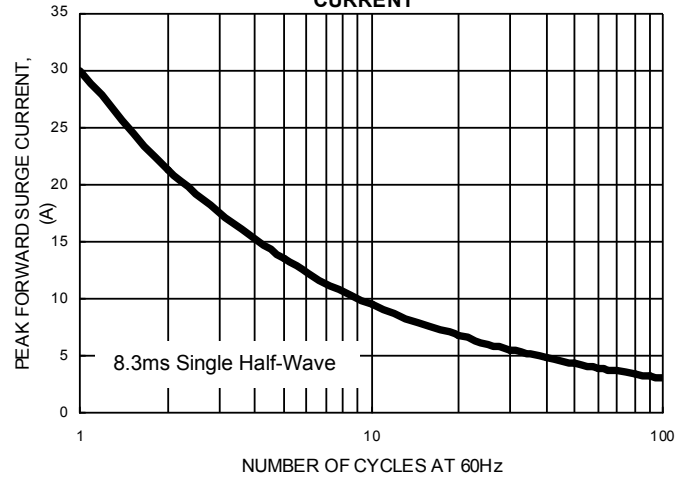
- (1) 300us Pulse width, 2% Duty cycle.
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (3) Thermal Resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft<sup>2</sup> 7x5 mm copper pad.
- (4) Thermal resistance to Case, Lead and Ambient.

**REV. 1 , Aug-2014, KSHP16**

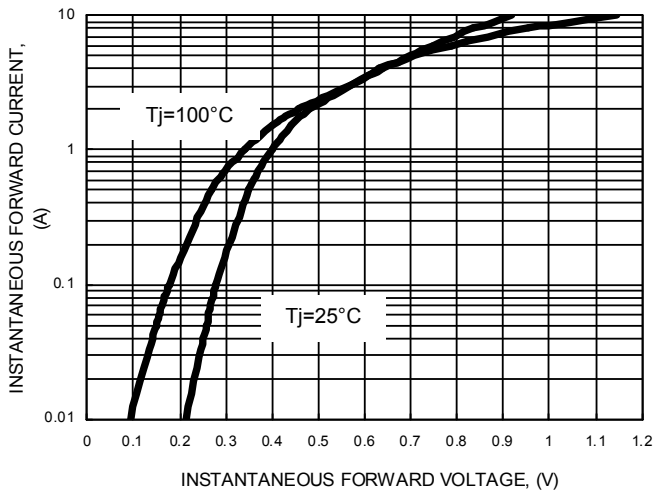
**FIG.1- FORWARD CURRENT DERATING CURVE**



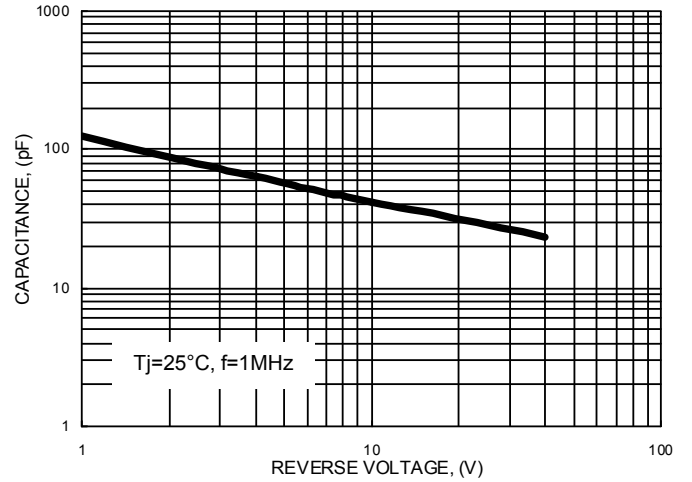
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**

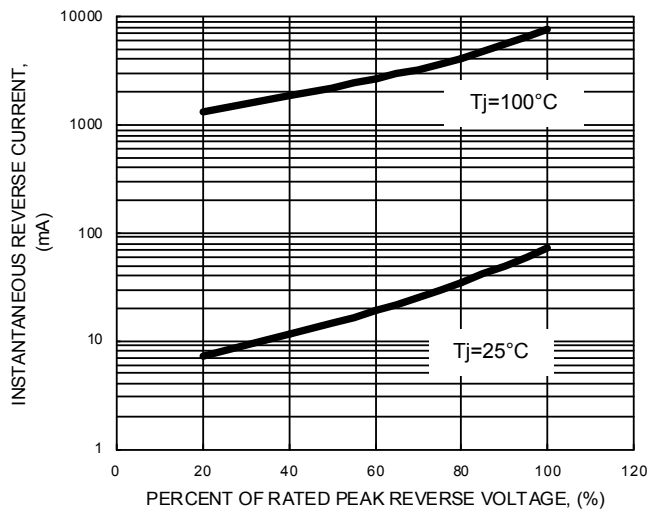
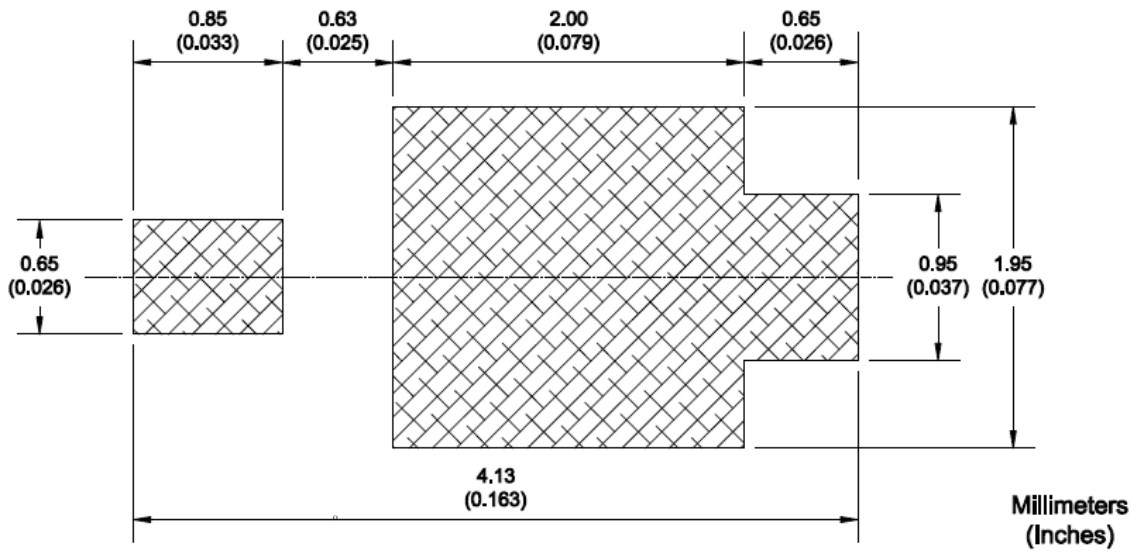


Fig.6 Recommended Foot Print of DO-222AA with Mite Flat



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