LITE-ON SEMICONDUCTORS

FB250M thru 260M

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE – 50 to 60Volts FORWARD CURRENT – 2.0 Ampere

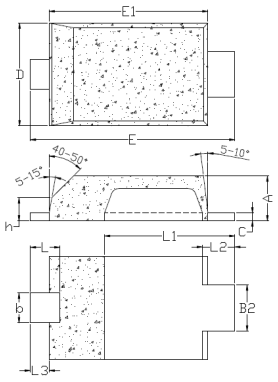
FEATURES

- Very low profile package – 0.80mm
- High efficiency
- Extremely fast switching
- Negligible switching losses
- Low forward voltage drop, low power loss

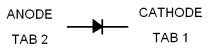
MECHANICAL DATA

- 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	FB250M	FB260M	UNIT
Device marking code	Note	B25	B26	---
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	60	V
Maximum RMS Voltage	V_{RMS}	35	42	V
Maximum DC Blocking Voltage	V_{DC}	50	60	V
Average Rectified Output Current @T_L=75°C	$I_{(AV)}$	2.0		A
Peak Forward Surge Current 8.3ms single half sine-wave	I_{FSM}	50		A
Operating junction temperature range	T_J	-55 to +125		°C
Storage temperature range	T_{STG}	-55 to +150		°C

PARAMETER	TEST CONDITIONS		SYMBOL	Max.	UNIT
Forward Voltage (1)	IF=2.0A	Tj=25°C Tj=125°C	V_F	0.7 0.6	V
Leakage Current (1)	VR=60V	Tj=25°C Tj=90°C	I_R	0.1 8	mA
THERMAL CHARACTERISTIC			**SYMBOL**	**Typical**	**UNIT**
Typical junction capacitance (2)			C_J	140	pF
Typical thermal resistance _ Junction to Case (3)			$R_{\Theta JC}$	20	°C/W
Typical thermal resistance _ Junction to Ambient (3)			$R_{\Theta JA}$	80	°C/W
Typical thermal resistance _ Junction to Lead (3)			$R_{\Theta JL}$	35	°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 0.75t glass-epoxy substrate with 5x7 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.

REV. 2, Oct-2010, KSHP06

RATING AND CHARACTERISTIC CURVES
FB250M~260M

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

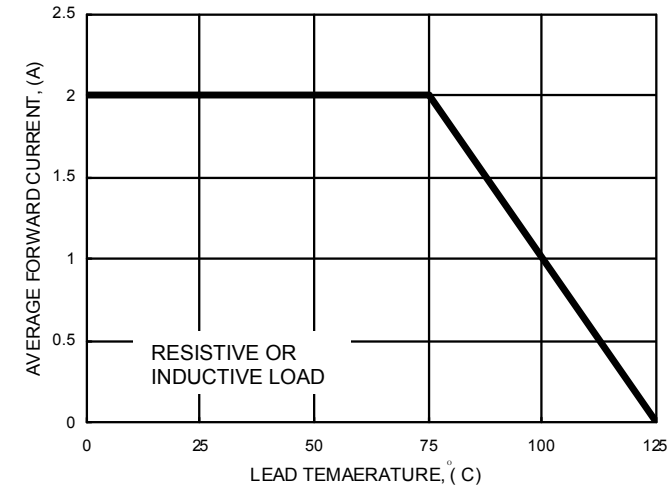


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

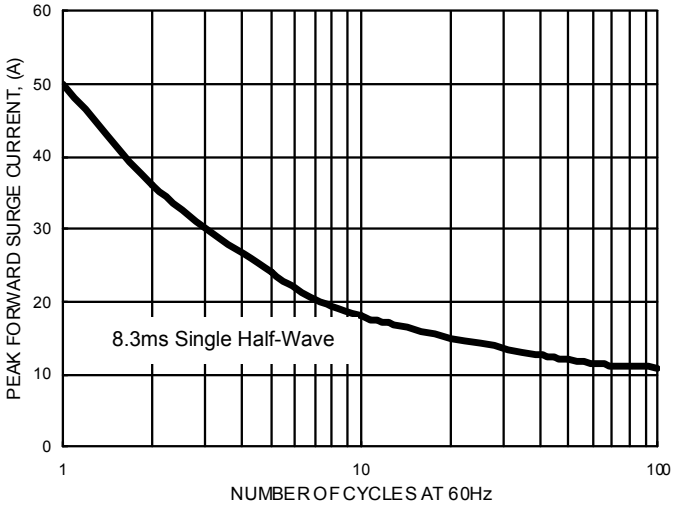


FIG.3- TYPICAL FORWORD CHARACTERISTICS

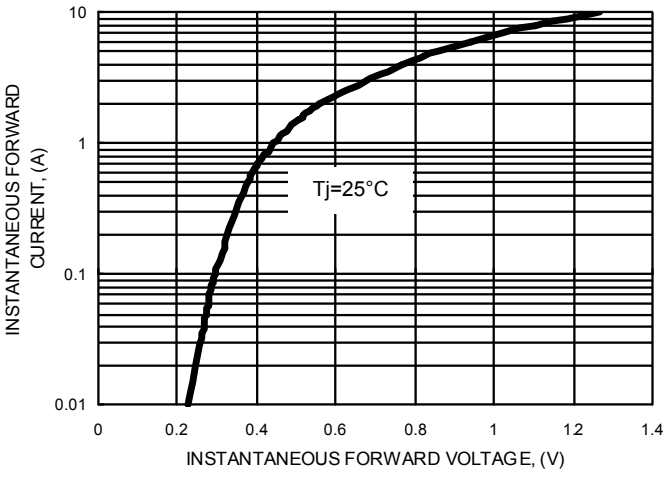


FIG.4- TYPICAL JUNCTION CAPACITANCE

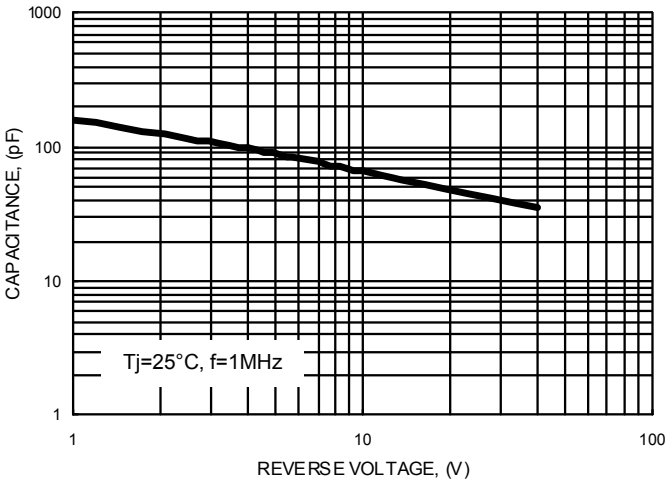


FIG.5- TYPICAL REVERSE CHARACTERISTICS

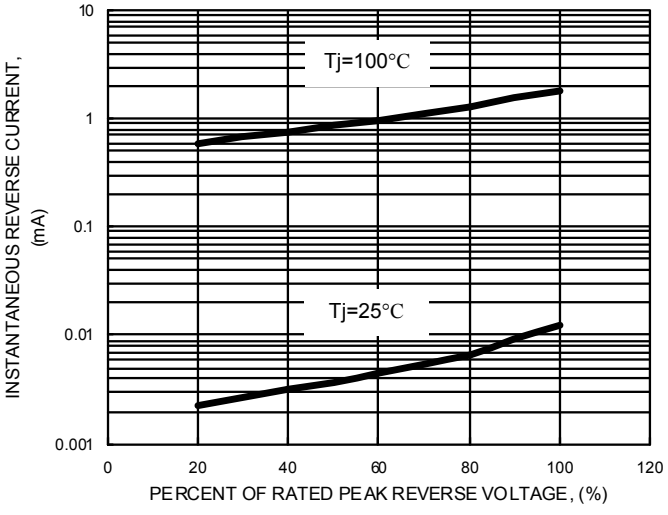


FIG.6- DC REVERSE VOLTAGE DERATING CURVE

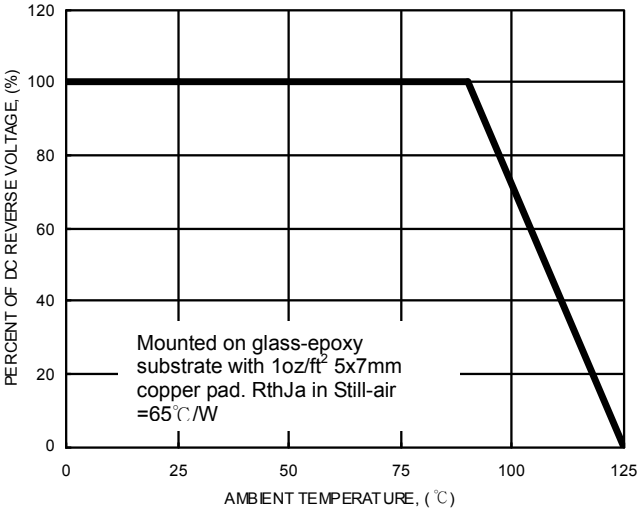
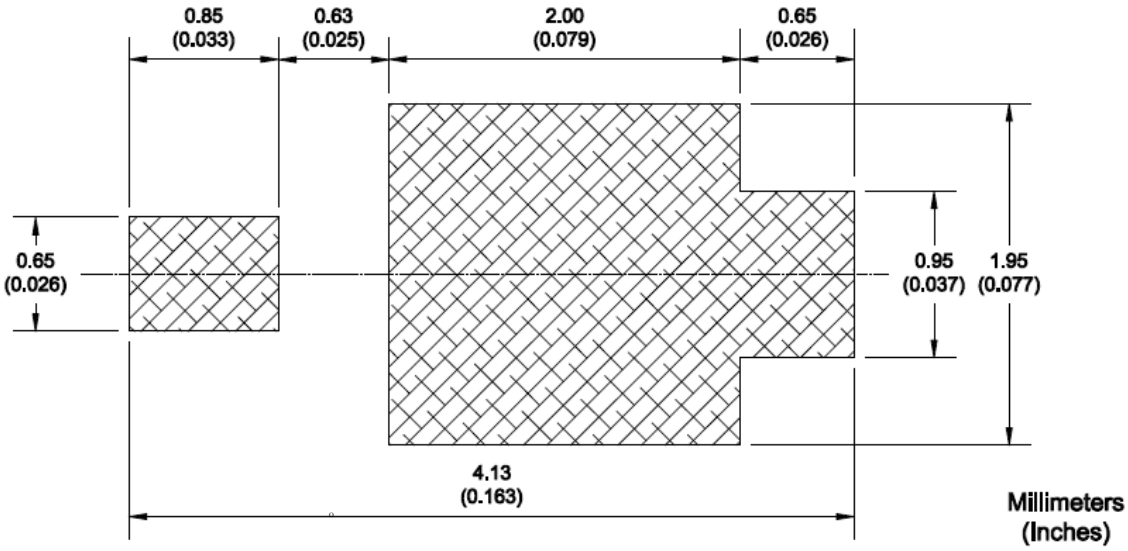


Fig.7 Recommended Foot Print of DO-222AA with Mite Flat



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