

FB250M-FB260M

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

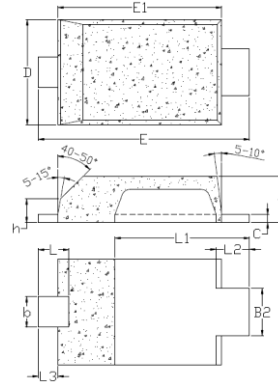
FEATURES

- Very low profile package – 0.80mm
- High efficiency
- Extremely fast switching
- Negligible switching losses
- Low forward voltage drop, low power loss
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

MECHANICAL DATA

- Case: JEDEC DO-222AA
- Case Material: “Green” molding compound, UL flammability classification 94V-0,
- 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)



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		

ANODE → CATHODE
TAB 2 TAB 1

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	FB250M	FB260M	UNIT
Device marking code	---	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 @ $T_L=75^\circ C$	$I_{(AV)}$	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 (4)	$I_F=2.0A$ $T_J=25^\circ C$ $T_J=125^\circ C$	V_F	0.7 0.6	V
Leakage Current (4)	$V_R=60V$ $T_J=25^\circ C$ $T_J=90^\circ C$	I_R	0.1 8	mA
THERMAL CHARACTERISTIC		SYMBOL	Typical	UNIT
Typical junction capacitance (5)		C_T	140	pF
Typical thermal resistance _ Junction to Case (6)		$R_{\theta JC}$	20	°C/W
Typical thermal resistance _ Junction to Ambient (6)		$R_{\theta JA}$	80	°C/W
Typical thermal resistance _ Junction to Lead (6)		$R_{\theta JL}$	35	°C/W

Note :

REV. 4, Oct. 2021, KSHP06

- (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 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.

FIG.1- FORWARD CURRENT DERATING CURVE

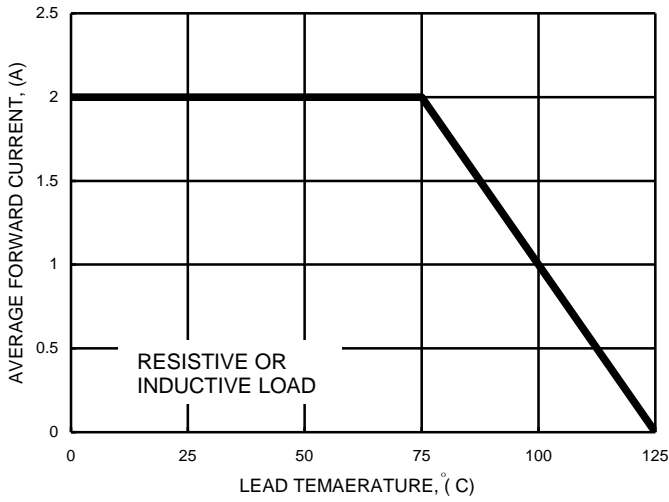


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

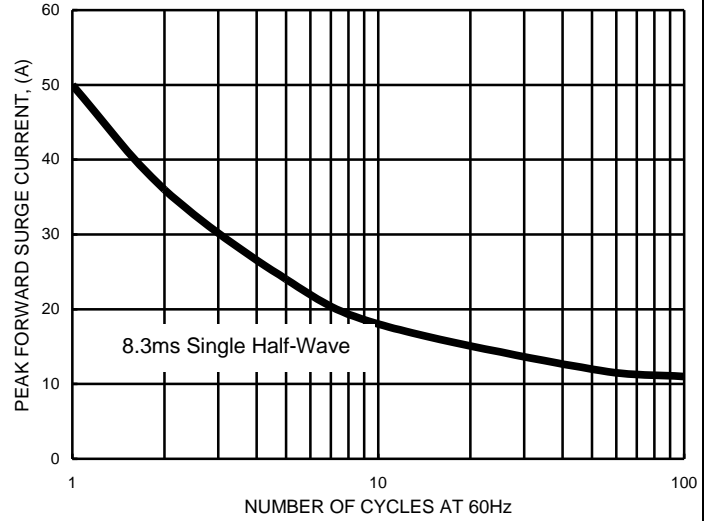


FIG.3- TYPICAL FORWARD CHARACTERISTICS

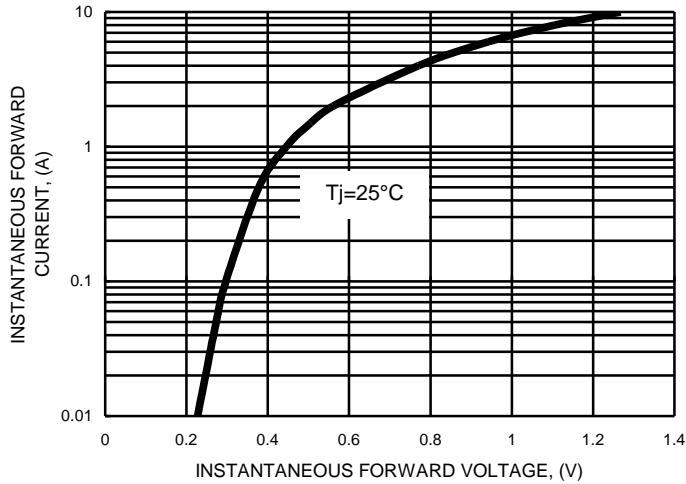


FIG.4- TYPICAL JUNCTION CAPACITANCE

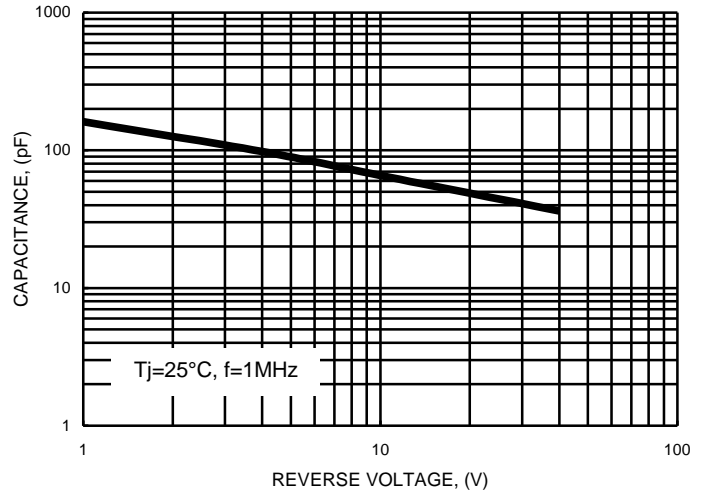


FIG.5- TYPICAL REVERSE CHARACTERISTICS

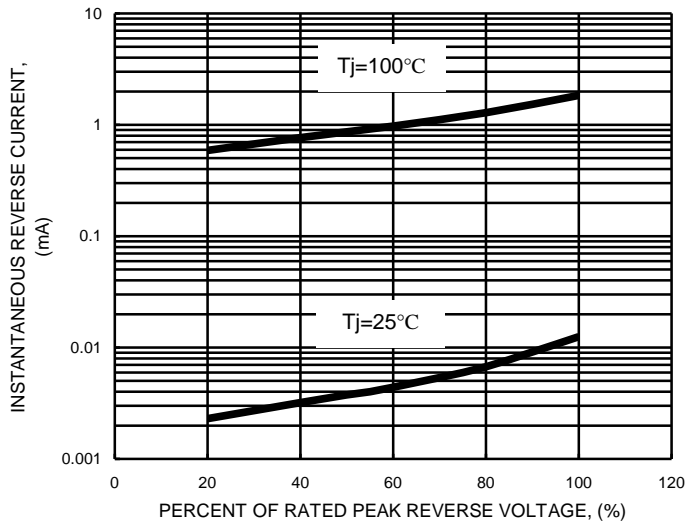
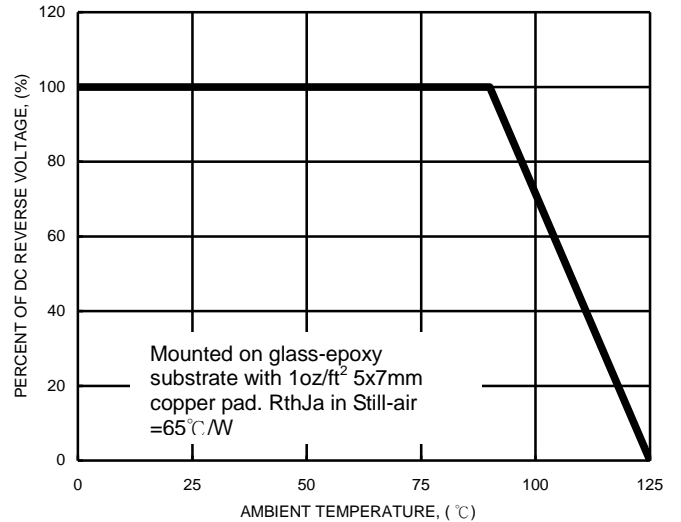


FIG.6- DC REVERSE VOLTAGE DERATING CURVE

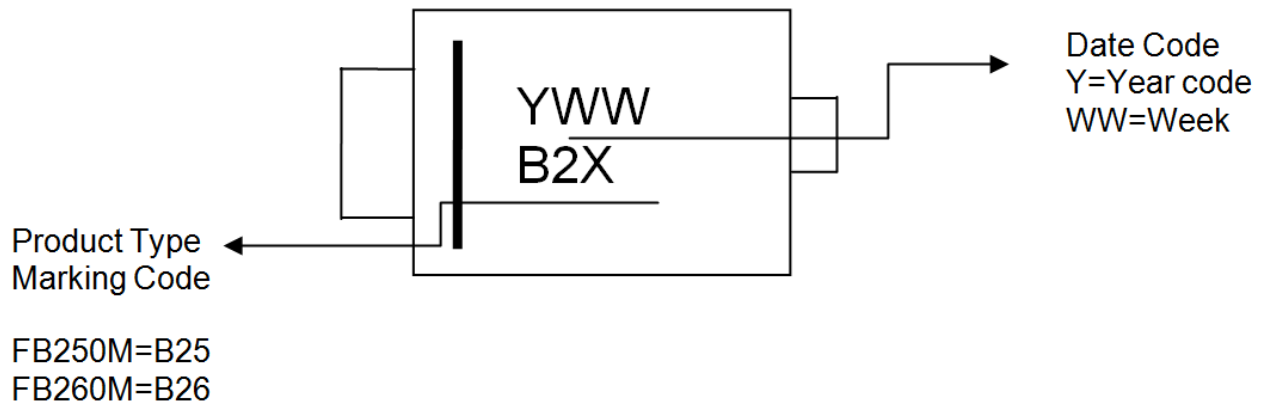


FB250M~FB260M

Ordering Information :

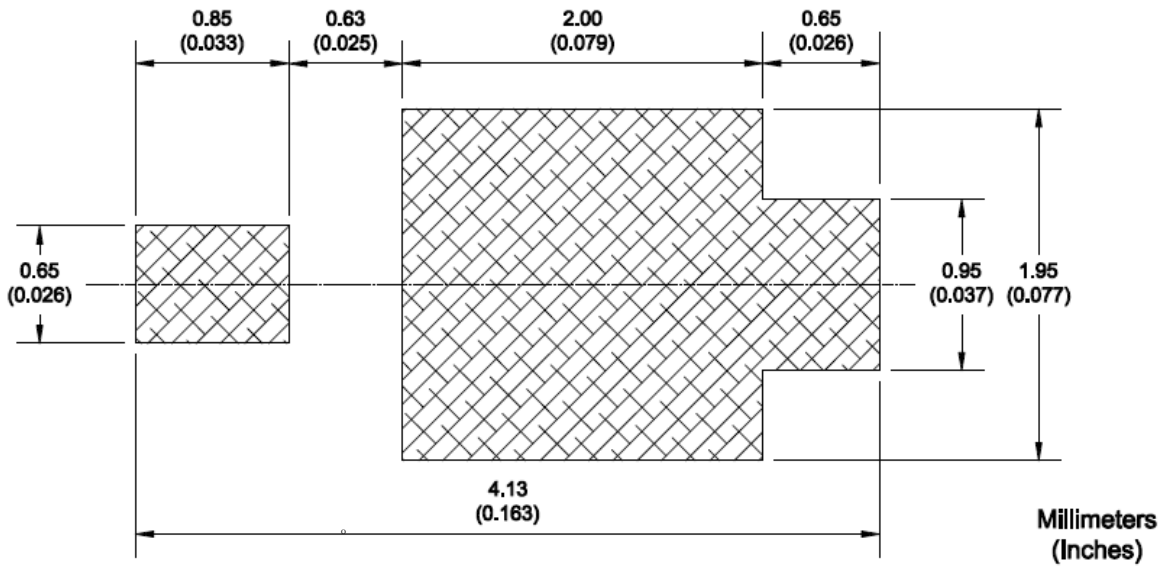
Part Number	Package	Packing	
		Qty.	Carrier
FB250M	DO-222AA	12000	Tape & Reel
FB260M	DO-222AA	12000	Tape & Reel

Marking Information :



FB250M~FB260M

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



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