A Product Line of Diodes Incorporated | LITE-ON SEMICONDUCTOR

FB340M

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE – 40Volts FORWARD CURRENT – 3.0 Ampere

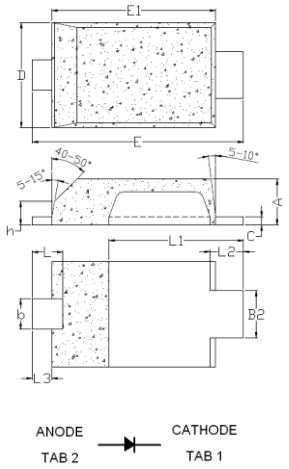
FEATURES

- 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)
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

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.)
- 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		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	FB340M	UNIT
Device marking code	Note	B34	---
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS Voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Average Rectified Output Current @T_L=115°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 (4)	IF=3.0A	Tj=25°C Tj=125°C	V_F	0.52 0.45	0.58 0.48	V
Leakage Current (4)	VDC=Rated	Tj=25°C Tj=100°C	I_R	--- ---	200 15	uA mA

THERMAL CHARACTERISTIC	SYMBOL	Typical	UNIT
Typical junction capacitance (5)	C_J	135	pF
Typical thermal resistance_Junction to Case (6)	$R_{\Theta JC}$	15	°C/W
Typical thermal resistance_Junction to Ambient(6)	$R_{\Theta JA}$	85	°C/W
Typical thermal resistance_Junction to Lead (6)	$R_{\Theta JL}$	20	°C/W

Note:

REV.-8,Sept-2021, KSHP01

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 glass-epoxy substrate with 1oz/ft2_7x5 mm copper pad. RΘJL is measured at the lead of cathode band, RΘJC is measured at the top centre of body, RΘJa is measured at top surface of the package to surrounding natural convection (Still air) ambient.

RATING AND CHARACTERISTIC CURVES
FB340M

FIG.1- FORWARD CURRENT DERATING CURVE

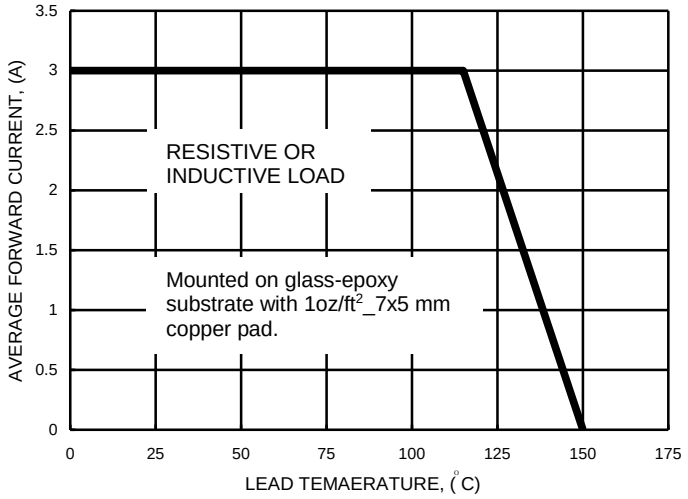


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

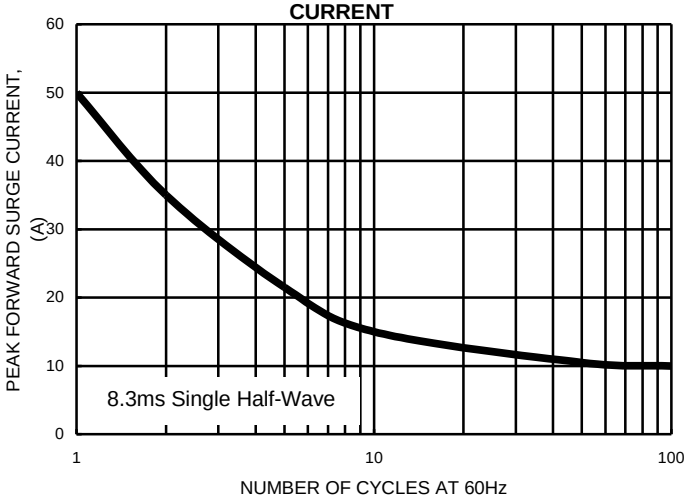


Fig.3 TYPICAL FORWARD CHARACTERISTICS

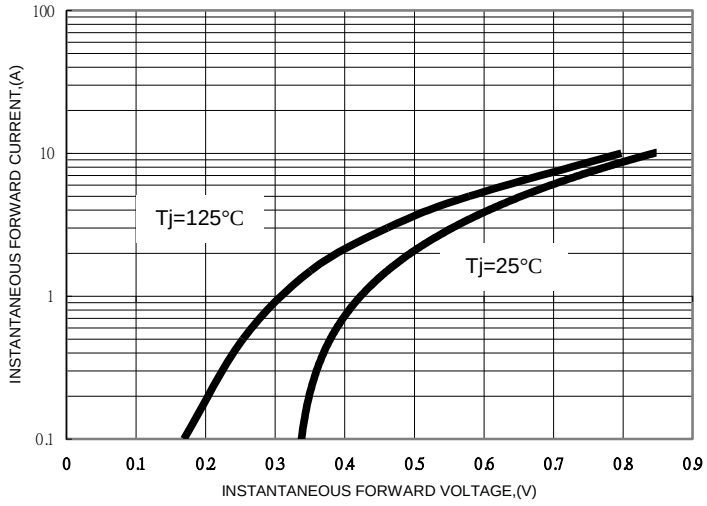


Fig.4 TYPICAL JUNCTION CAPACITANCE

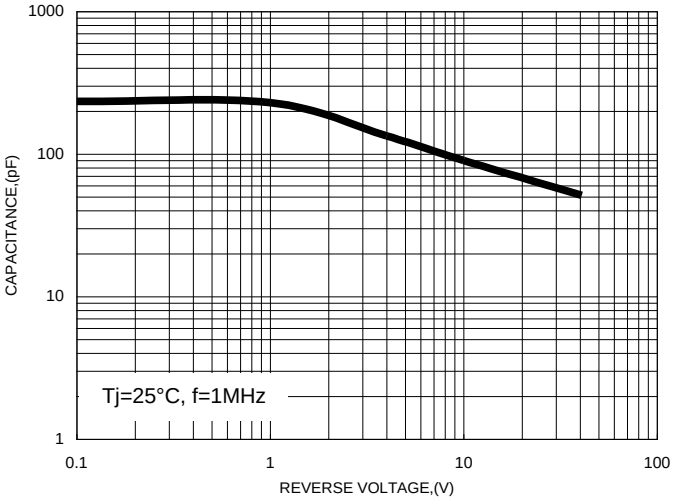


Fig.5 TYPICAL REVERSE CHARACTERISTICS

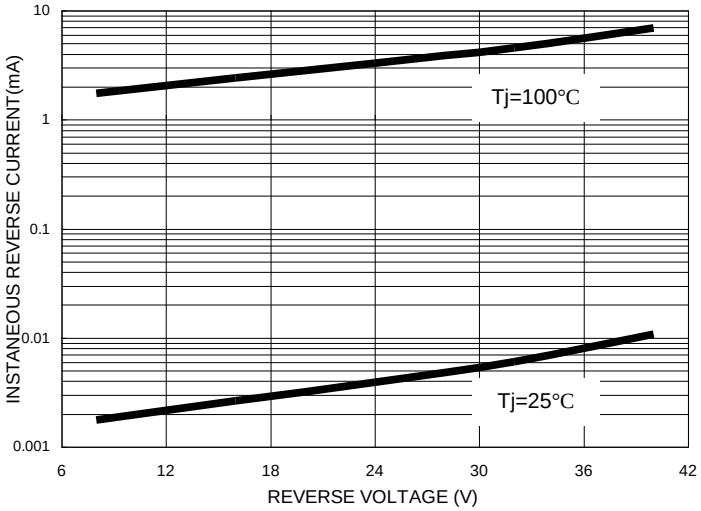
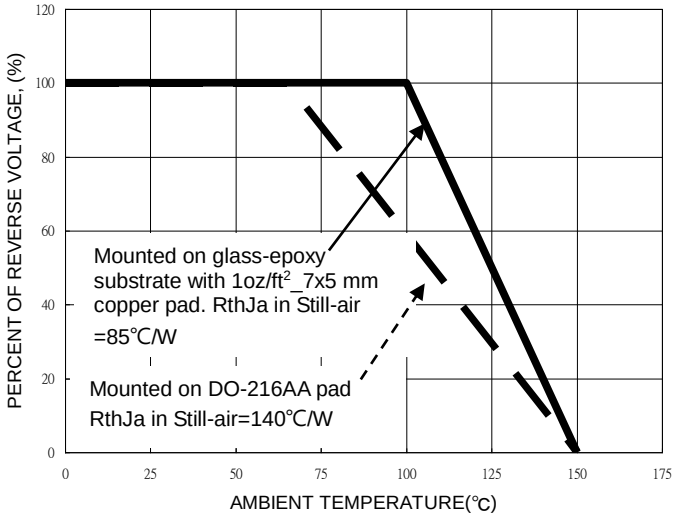


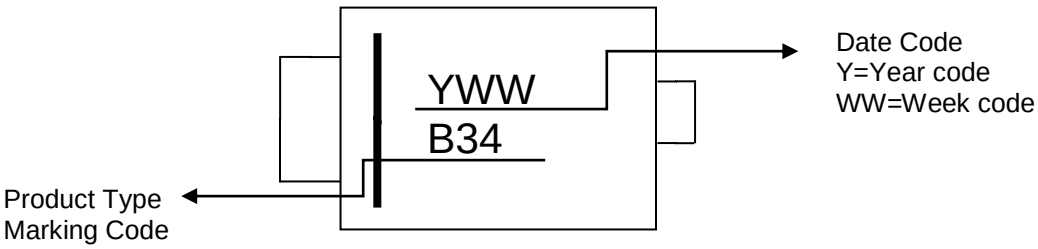
Fig.6 MAX DC REVERSE VOLTAGE



Ordering Information :

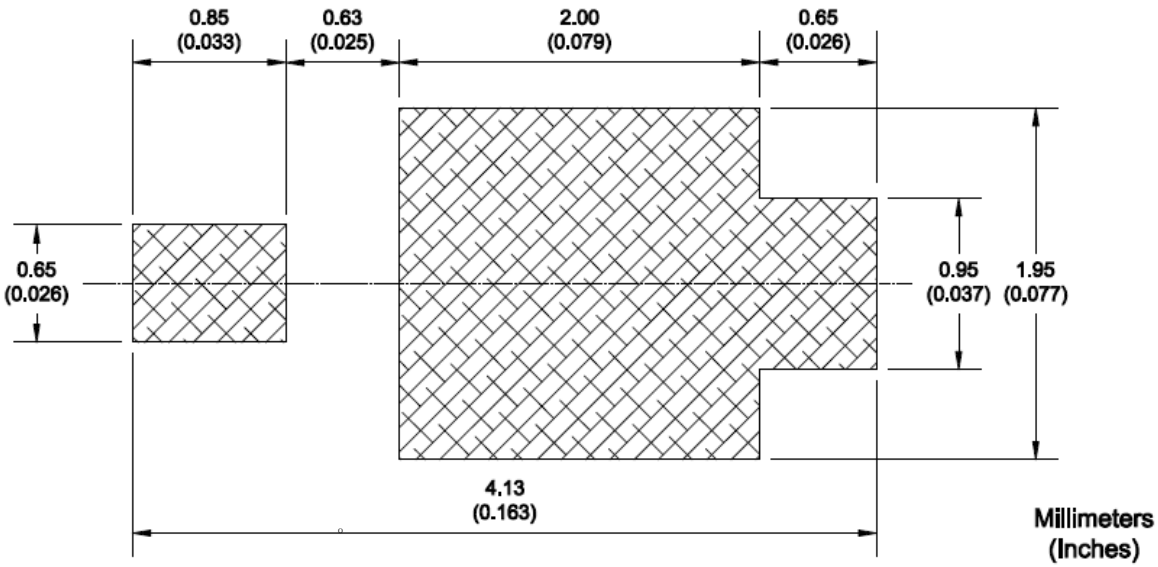
Part Number	Case	Packaging
FB340M	DO-222AA	12000/Tape & Reel

Marking Information :



MECHANICS DRAWING
FB340M

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



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