FB340D

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE – 40 Volts FORWARD CURRENT – 3.0 Amperes

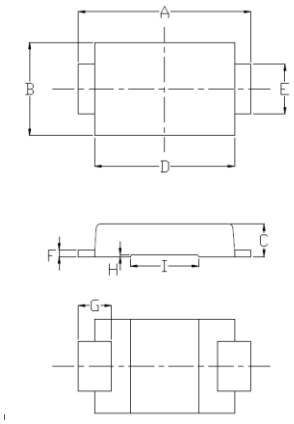
FEATURES

- Very low profile package – 1.0mm
- High efficiency
- Extremely fast switching
- Negligible switching losses
- Low forward voltage drop, low power loss
- Qualified according AEC-Q101 Rev_C
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: JEDEC DO-221AC
- Package Material: "Green" molding compound, UL flammability classification 94V-0, "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
- Marking code: B340

F3-D



F3-D			
DIM.	MIN.	TYP.	MAX
A	4.80	5.20	5.60
B	2.25	2.80	2.95
C	0.90	1.00	1.10
D	3.95	4.20	4.60
E	1.25	1.50	1.65
F	0.15	0.20	0.40
G	0.75	1.00	1.50
H	0.025	0.05	0.075
I	1.90	2.05	2.20
All dimension in millimeter			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER		SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	40	V
Maximum DC blocking voltage		V_{DC}	40	V
Average rectified output current	Tc=100°C	$I_{(AV)}$	3.0	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	75	A
Operating junction temperature range		T_J	-55 to +125	°C
Storage temperature range		T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS		SYMBOL	MAX	UNIT
Forward voltage (Note 4)	IF=3.0A	T_J=25°C	V_F	0.47	V
Leakage current (Note 4)	VR=40V	T_J=25°C T_J=100°C	I_R	0.2 20	mA
Typical junction capacitance (Note 5)			C_J	300	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 6)	$RthJ_C$ $RthJ_L$ $RthJ_A$	15 28 80	°C/W

Notes:

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 voltage of 4.0VDC.
6. Thermal resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft^2_7mm x 7mm copper pad.

RATING AND CHARACTERISTIC CURVES
FB340D

FIG.1- FORWARD CURRENT DERATING CURVE

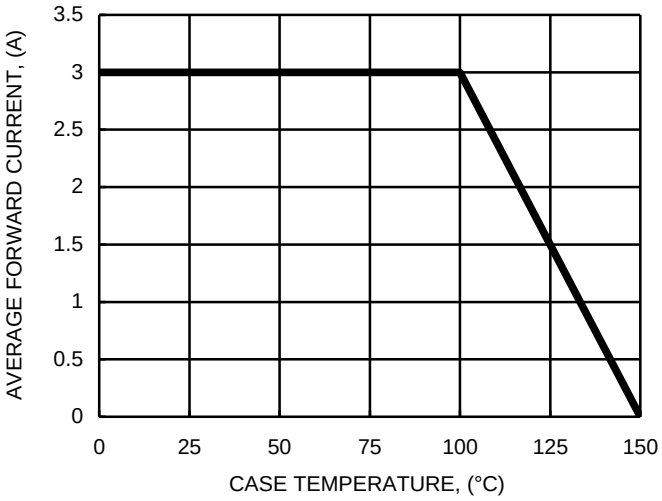


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

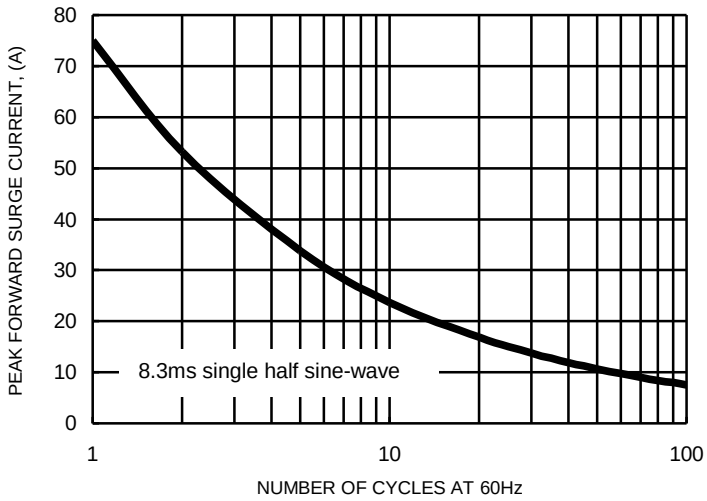


FIG.3- TYPICAL FORWORD CHARACTERISTICS

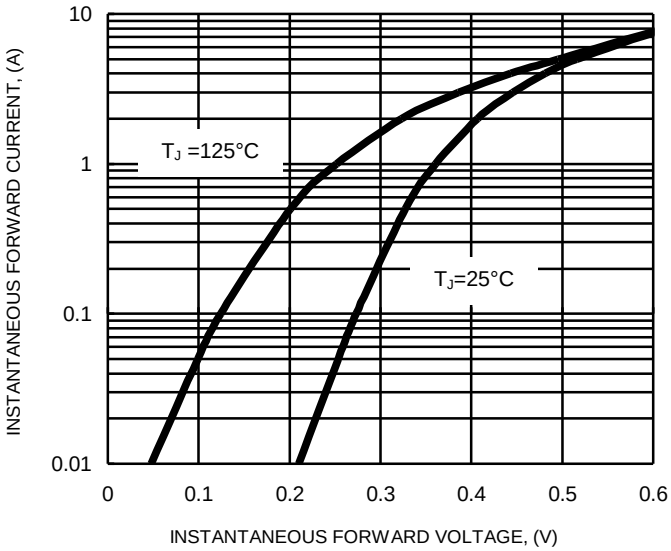


FIG.4- TYPICAL JUNCTION CAPACITANCE

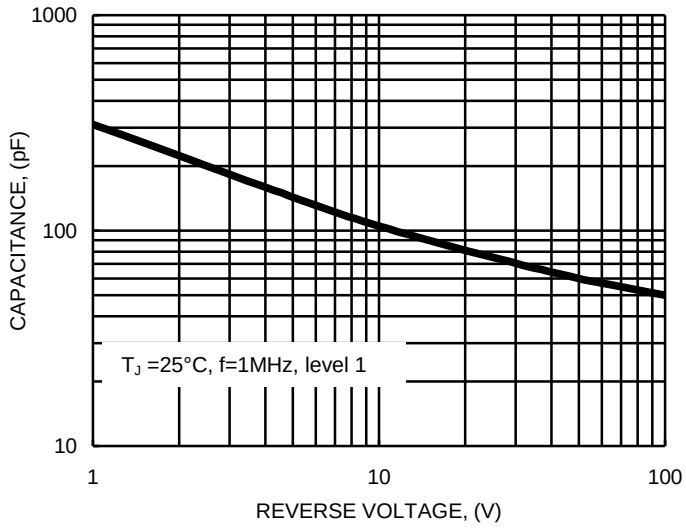
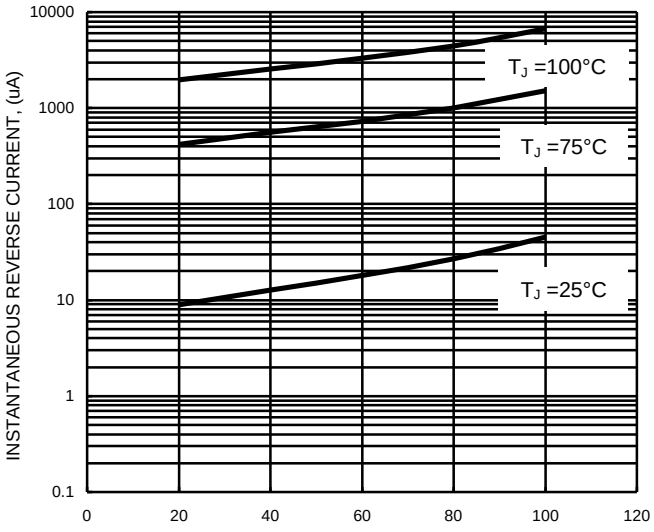


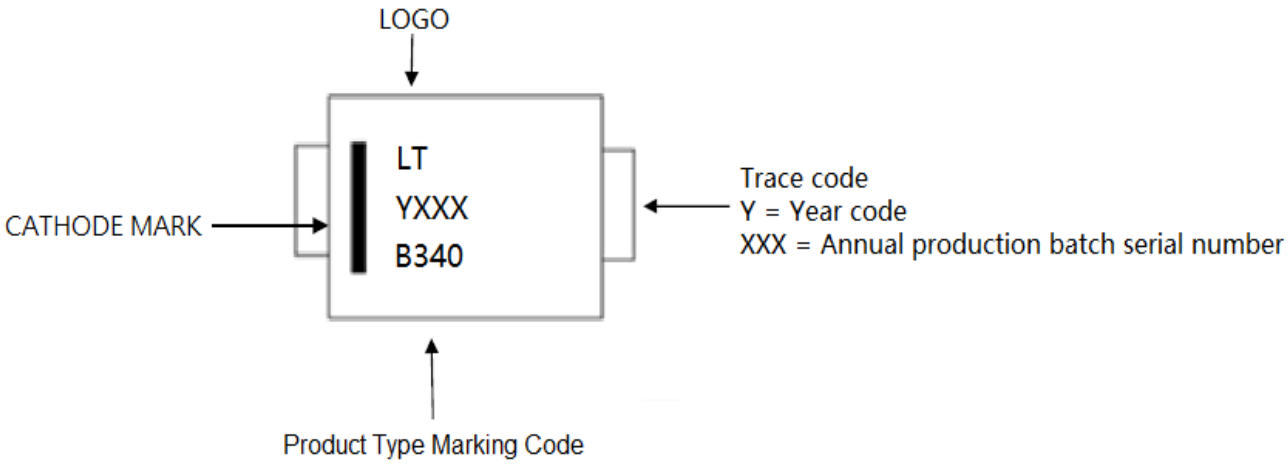
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
FB340D	F3-D	10000	Tape & Reel

Marking Information:



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