

**SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 45 Volts
FORWARD CURRENT – 3.0 Amperes**

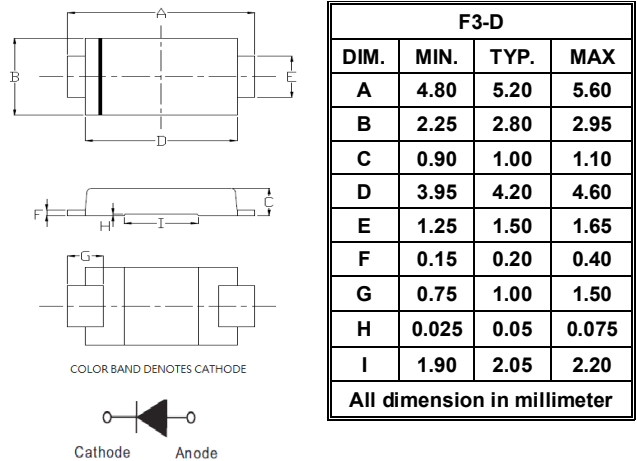
FEATURES

- Very low profile package – 1.0mm
- High efficiency
- Extremely fast switching
- Negligible switching losses
- Low forward voltage drop, low power loss
- Qualified according to AEC-Q101 Rev_C
- IEC 61000-4-2, level 4 (ESD),
> ±15KV (air) ; > ±8KV (contact)

MECHANICAL DATA

- Case: JEDEC DO-221AC
- Molding compound meets UL 94 V-0 flammability rating, "Halogen-free", RoHS-compliant, and commercial grade
- 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: B345

F3-D



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum DC blocking voltage	V_{DC}	45	V
Average rectified output current	$I_{(AV)}$	3.0	A
Peak forward surge current 8.3ms single half sine-wave Superimposed on rated load.	I_{FSM}	80	A
Peak repetitive forward current (Square Wave 50kHz, Duty 10%, $T_C=100^\circ\text{C}$)	I_{FRM}	16	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 (Note1)	$I_F=3.0A$ $T_J=25^\circ\text{C}$	V_F	0.55	V
Leakage current (Note1)	$V_R=45V$ $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R	0.15 25	mA
Typical junction capacitance (Note2)		C_J	200	pF

THERMAL CHARACTERISTICS

THERMAL CHARACTERISTIC	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note3)	R_{thJC} R_{thJa} R_{thJL}	13 26 85	°C/W

Note :

- (1) 300us pulse width, 2% duty cycle.
- (2) Measured at 1.0MHz and applied voltage of 4.0VDC.
- (3) Thermal resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft² 7 mm x 7 mm copper pad.

REV.-6, Sep-2019, KSHP20

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RATING AND CHARACTERISTIC CURVES FB345D



FIG.1- FORWARD CURRENT DERATING CURVE

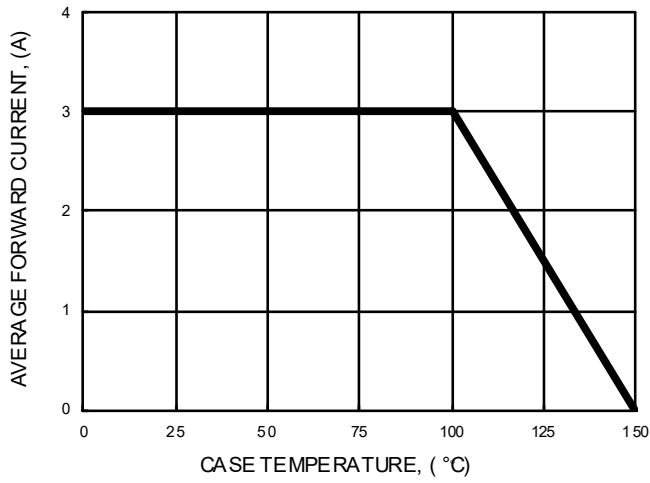


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

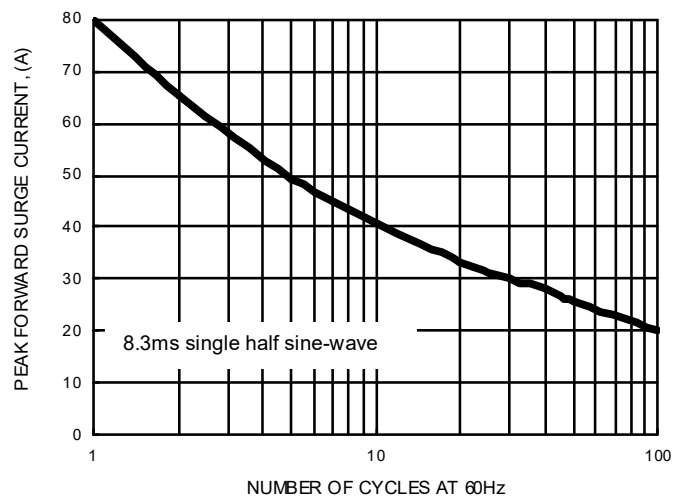


FIG.3- TYPICAL FORWARD CHARACTERISTICS

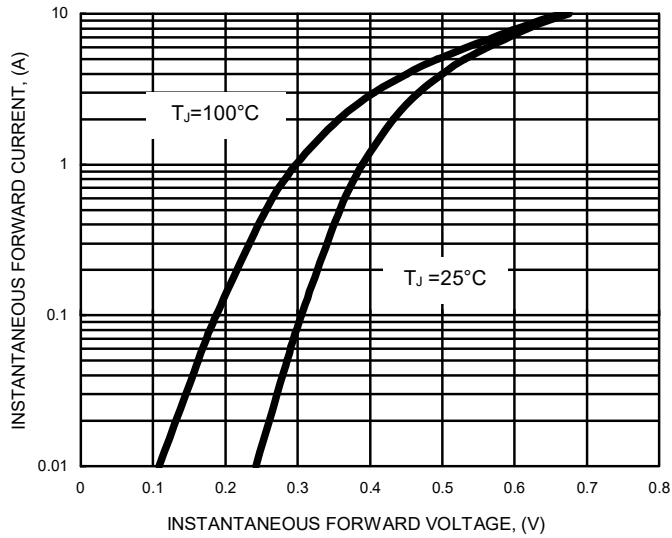


FIG.4- TYPICAL JUNCTION CAPACITANCE

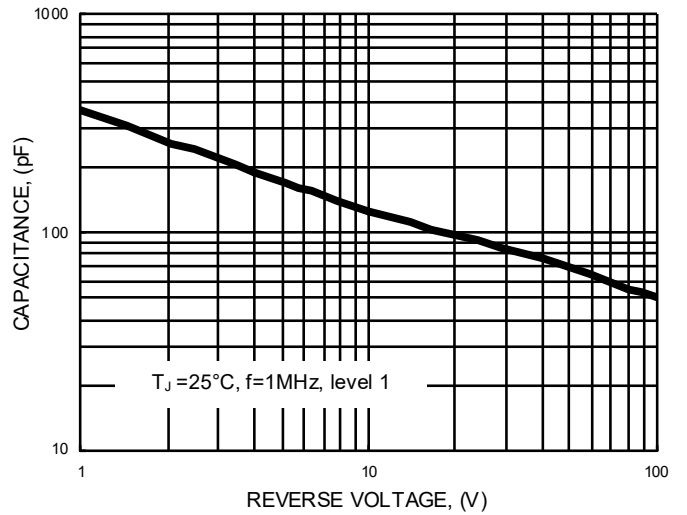
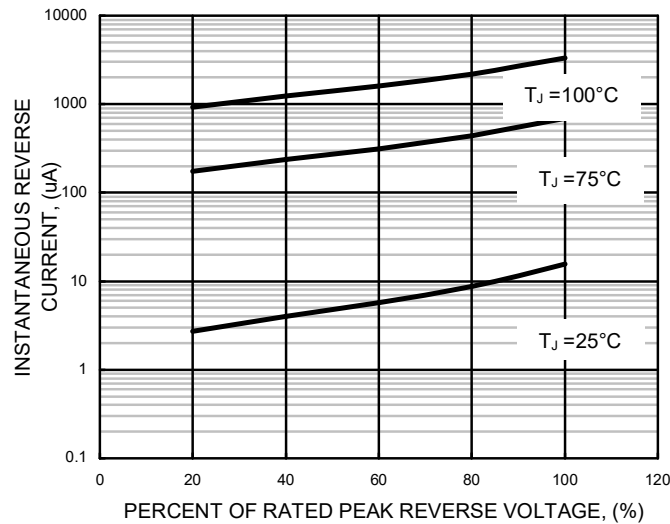


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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