

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 60 Volts  
FORWARD CURRENT – 1 Amperes**

**FEATURES**

- Very low profile package
- High efficiency
- Negligible switching losses
- Low forward voltage drop, low power loss
- Qualification is according to AEC-Q101 Rev\_C

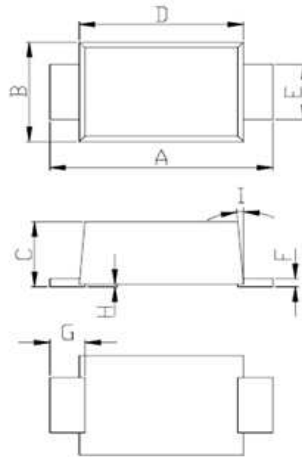
**APPLICATION**

- Low voltage high frequency inverters
- DC to DC converter
- Polarity protection application

**MECHANICAL DATA**

- Case: JEDEC DO-219AA
- Case Material: “Green” molding compound, UL Flammability classification 94V-0, (No Br. SB. Cl.) “Halogen-free”.
- Moisture Sensitivity: Level 1 per J-STD-020
- Lead free finish, RoHS compliant
- Weight: 16.3 mg (Approximate)
- Marking code: 160

**F1A**



F1A			
DIM	MIN	TYP	MAX
A	3.50	3.80	3.90
B	1.70	1.90	2.00
C	0.81	1.18	1.20
D	2.70	2.80	2.90
E	0.80	1.00	1.35
F	0.05	0.15	0.30
G	0.35	0.60	0.85
H	0.03	0.07	0.1
I	0°	5°	8°

All dimension in millimeter

**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	$V_{RRM}$	60	V
Maximum DC blocking voltage	$V_{DC}$	60	V
Maximum Average rectified output current	$I_{(AV)}$	1	A
Peak forward surge current 8.3ms single half sine-wave Superimposed on rated load.	$I_{FSM}$	30	A
Operating junction and Storage Temperature range	$T_J, T_{STG}$	-55 ~ +150	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 1)	$I_F=1A$ $T_J=25^\circ C$ $T_J=125^\circ C$	$V_F$	-- 0.55	0.675 0.595	V
Leakage current	$V_R=60V$ $T_J=25^\circ C$ $T_J=125^\circ C$	$I_R$	-- 0.74	25 5	uA mA
Typical junction capacitance (Note 2)		$C_J$		45	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	$R_{thJA}$	90	°C/W
	$R_{thJC}$	45	
	$R_{thJL}$	40	

**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.

REV.-1 , Sep-2016, KSHP37

# RATING AND CHARACTERISTIC CURVES FB160E



FIG.1 FORWARD CURRENT DERATING CURVE

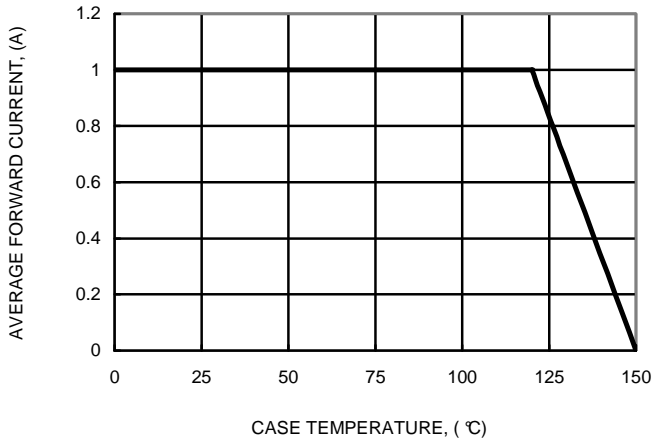


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

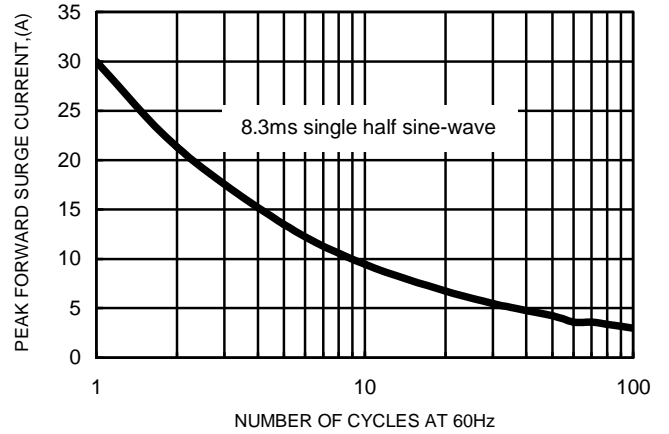


FIG.3 TYPICAL FORWARD CHARACTERISTICS

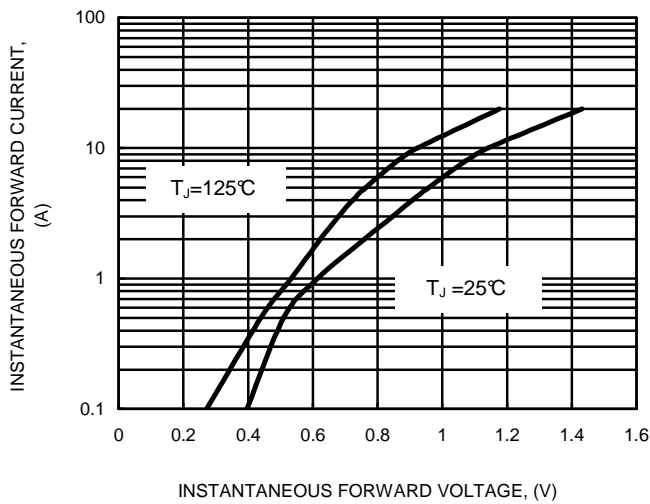


FIG.4 TYPICAL JUNCTION CAPACITANCE

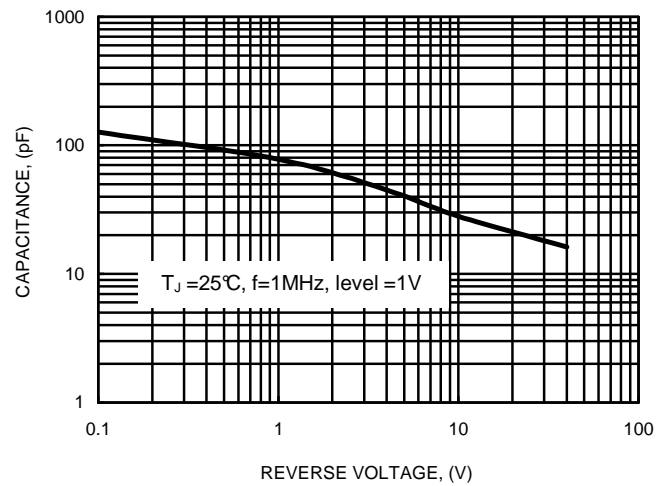
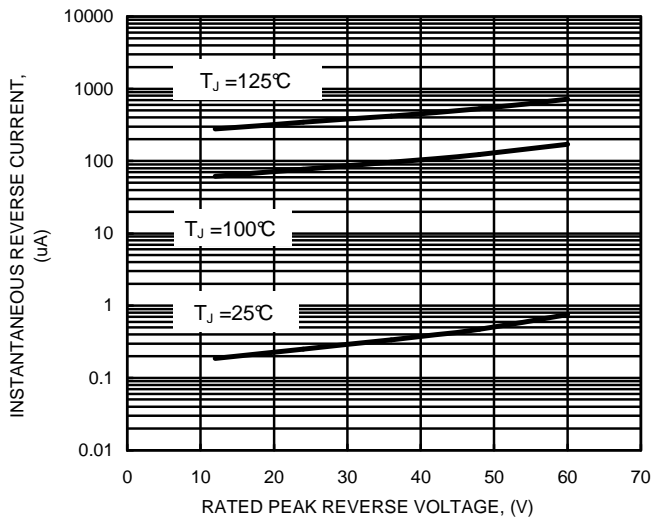


FIG.5 TYPICAL REVERSE CHARACTERISTICS



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