

**SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 30 Volts
FORWARD CURRENT – 2 Amperes**

FEATURES

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

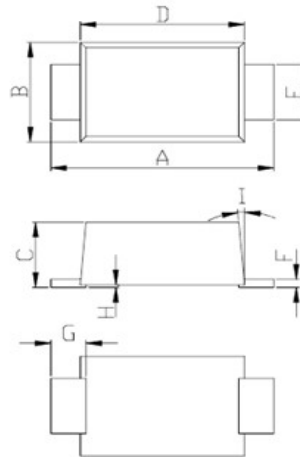
APPLICATION

- 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, “Halogen-free”.
- Moisture Sensitivity: Level 1 per J-STD-020
- Lead free finish, RoHS compliant
- Weight: 16.3 mg (Approximate)
- Marking code: 230

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}	30	V
Maximum DC blocking voltage	V_{DC}	30	V
Maximum Average rectified output current	$I_{(AV)}$	2	A
Peak forward surge current 8.3ms single half sine-wave Superimposed on rated load.	I_{FSM}	60	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)	$I_F=2A$	$T_J=25^{\circ}C$ $T_J=125^{\circ}C$	V_F	-- 0.56	0.675 --	V
Leakage current	$V_R=30V$	$T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I_R	-- 0.52	25 5	μA mA
Typical junction capacitance (Note 2)			C_J	85		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 3)	R_{thJA}	110	°C/W
	R_{thJc}	30	
	R_{thJL}	50	

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. - 2 , Sep-2019, KSHP38

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RATING AND CHARACTERISTIC CURVES FB230E



FIG.1 FORWARD CURRENT DERATING CURVE

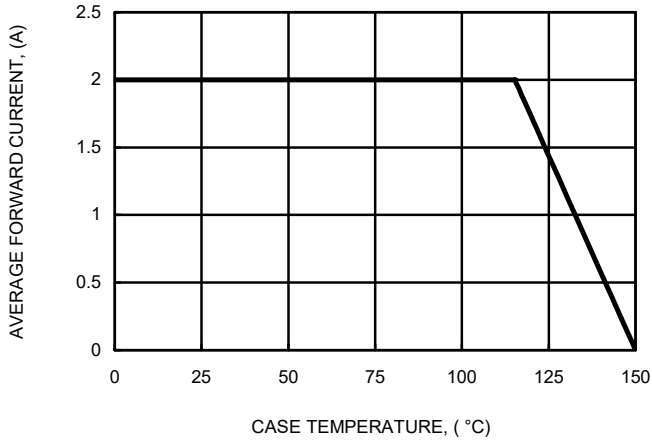


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

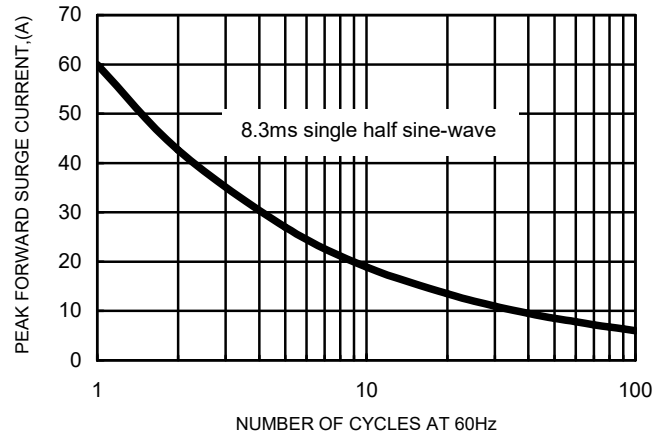


FIG.3 TYPICAL FORWARD CHARACTERISTICS

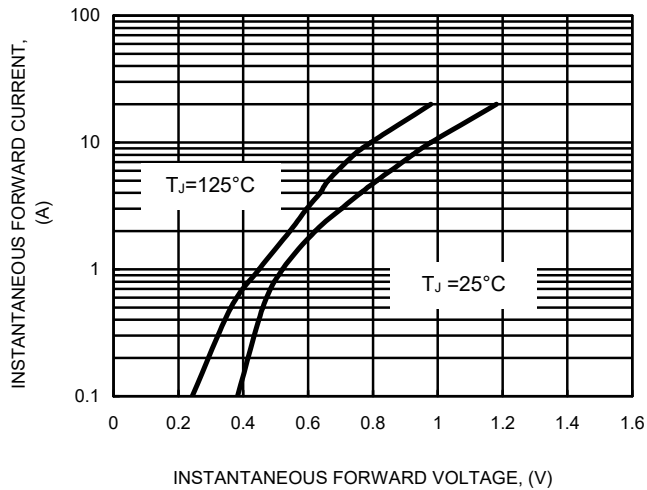


FIG.4 TYPICAL JUNCTION CAPACITANCE

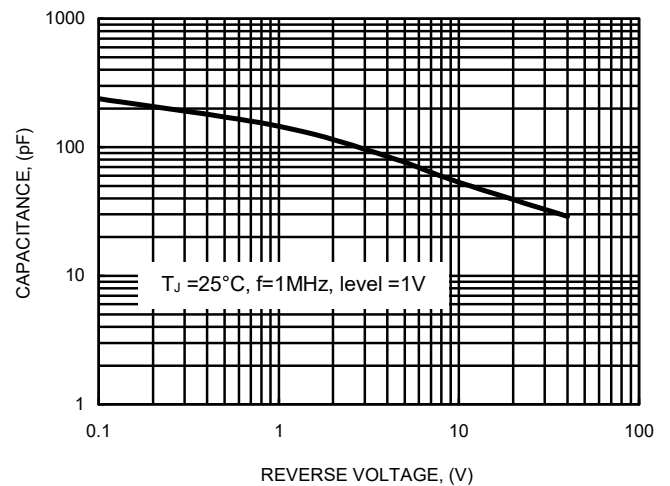
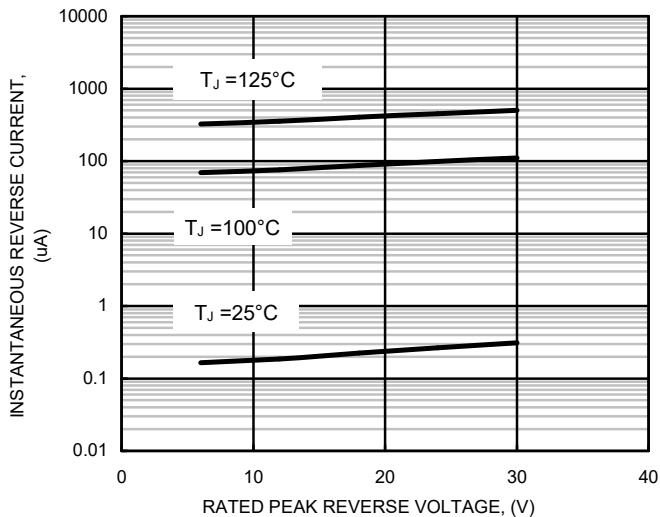


FIG.5 TYPICAL REVERSE CHARACTERISTICS



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