

**SURFACE MOUNT  
SUPER FAST RECTIFIERS**

**REVERSE VOLTAGE – 400 Volts  
FORWARD CURRENT – 1.0 Amperes**

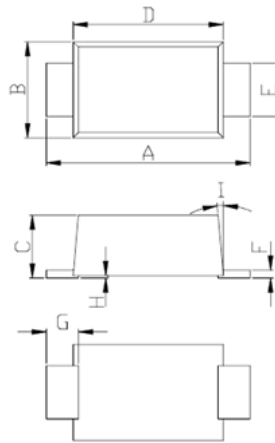
**FEATURES**

- Fast switching for high efficiency
- For surface mounted applications
- Glass passivated chip
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Qualified according to AEC-Q101 Rev\_C

**MECHANICAL DATA**

- Case: JEDEC DO-219AA
- Case Material: "Green" molding compound, UL flammability classification 94V-0,"Halogen-free".
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Component in accordance to RoHs 2002/95/EC
- Marking code: E1G
- Weight: 16.5 mg(Approximate)

**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	0.10
I	0°	5°	8°

All dimension in millimeter.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATING**

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	V
Maximum DC blocking voltage	$V_{DC}$	400	V
Maximum Average rectified forward current	$I_{(AV)}$	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30	A
Operating and Storage temperature range	$T_J, T_{STG}$	-55 ~ +150	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage	$I_F=1.0A$ $T_J=25^\circ C$	$V_F$	--	1.25	V
Leakage current	$V_R=400V$ $T_J=25^\circ C$ $T_J=125^\circ C$	$I_R$	--	5 200	$\mu A$
Typical junction capacitance (Note 1)		$C_J$		14	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP	UNIT
Typical Thermal Resistance (Note 2)	$R_{thJA}$ $R_{thJL}$ $R_{thJC}$	100 40 50	°C/W

**DYNAMIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Reverse recovery time	$I_F=0.5A, I_{RR}=0.25A, I_R=1.0A$	$T_{rr}$	25	nS

**Note :**

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance test performed in accordance with JESD-51.

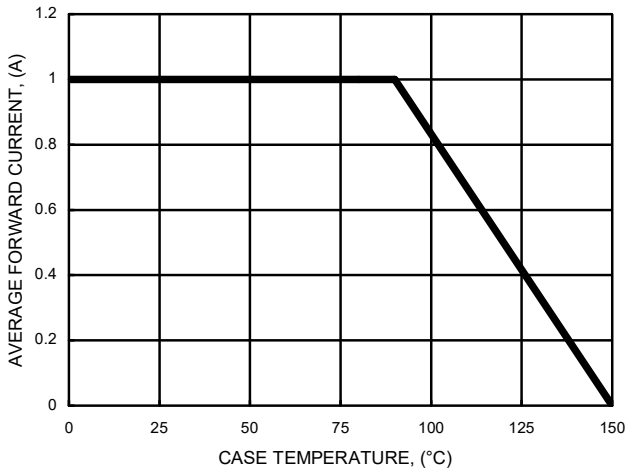
REV-3, Jun.-2020,KSEP11

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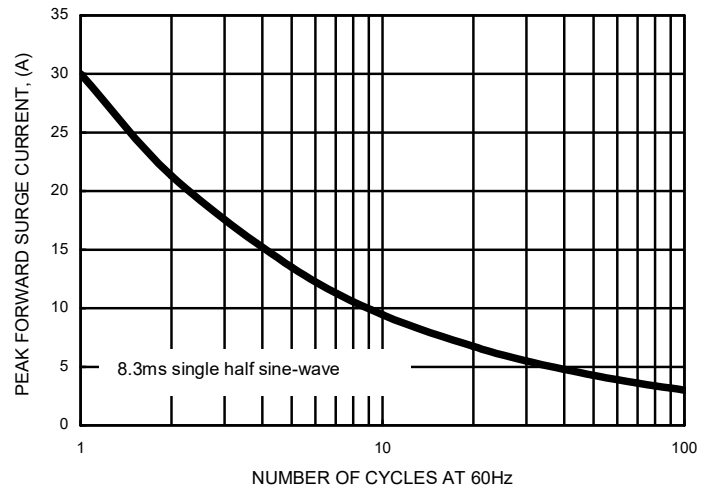
# RATING AND CHARACTERISTIC CURVES FES1GE



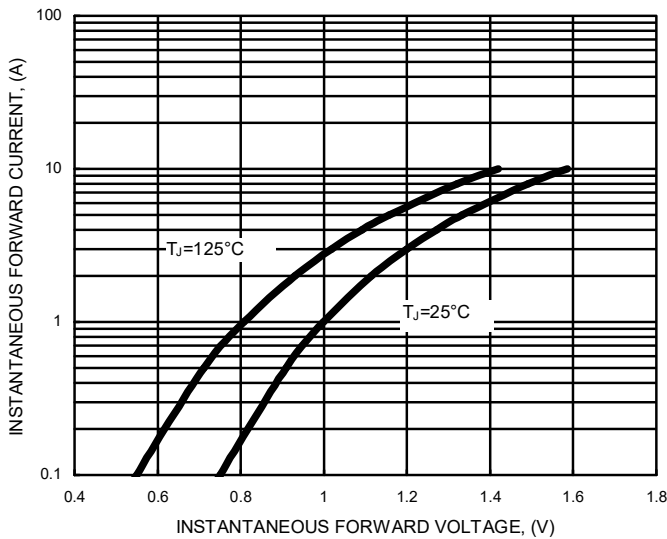
**FIG.1- FORWARD CURRENT DERATING CURVE**



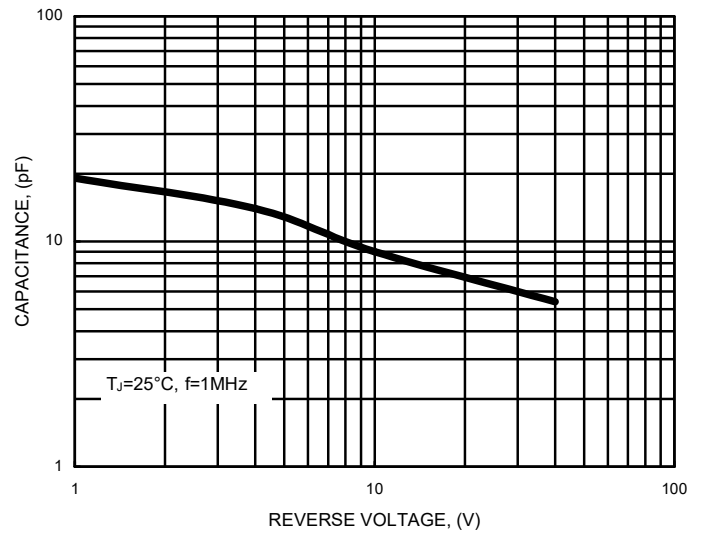
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



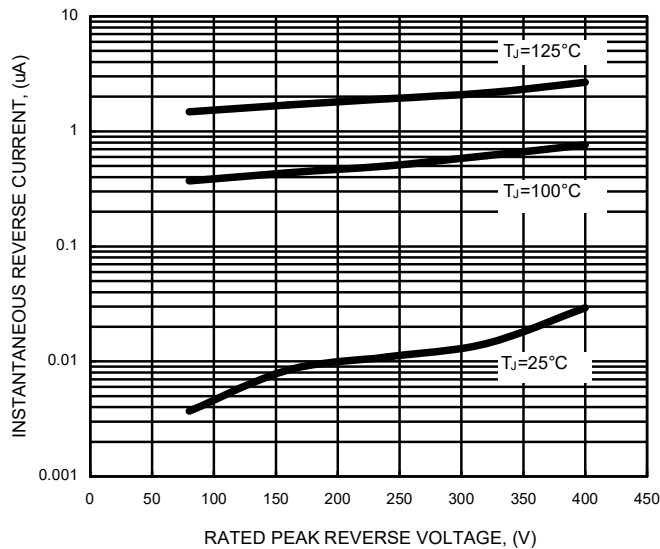
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



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