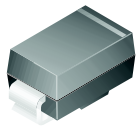
Fast Rectifiers (Glass Passivated)

EGF1A, EGF1B, EGF1C, EGF1D



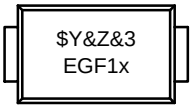
COLOR BAND DENOTES CATHODE

SMA (DO−214AC)
CASE 403AE

Features

- Low Forward Voltage Drop
- Low Profile Package
- Fast Switching for High Efficiency
- These Devices are Pb−Free, Halide Free and are RoHS Compliant

MARKING DIAGRAM



$Y = Logo
&Z = Assembly Plant Code
&3 = 3−Digit Date Code
EGF1x = Specific Device Code (x = A, B, C, D)

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Symbol	Parameter	Value				Unit
		1A	1B	1C	1D	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	150	200	V
$I_{F(AV)}$	Average Rectified Forward Current, @ T_L = 100°C	1.0				A
I_{FSM}	Non−repetitive Peak Forward Surge Current 8.3 ms Single Half−Sine−Wave	30				A
T_{stg}	Storage Temperature Range	−65 to +175				°C
T_J	Operating Junction Temperature	−65 to +175				°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	200	V
P_D	Power Dissipation	2.0	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient*	85	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead*	30	°C/W

*Device mounted on FR−4 PCB 0.013 mm.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Parameter	Device				Unit
		1A	1B	1C	1D	
V_F	Forward Voltage @ 1.0 A	1.0				V
t_{rr}	Reverse Recovery Time I_F = 0.5 A, I_R = 1.0 A, I_{RR} = 0.25 A	50				ns
I_R	Reverse Current @ Rated V_R T_A = 25°C T_A = 100°C	10 100				µA µA
C_T	Total Capacitance V_R = 4.0 V, f = 1.0 MHz	15				pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

ORDERING INFORMATION

Device	Package	Shipping†
EGF1A	SMA (Pb−Free, Halide Free)	7500 / Tape & Reel
EGF1B		
EGF1C		
EGF1D		

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

TYPICAL CHARACTERISTICS

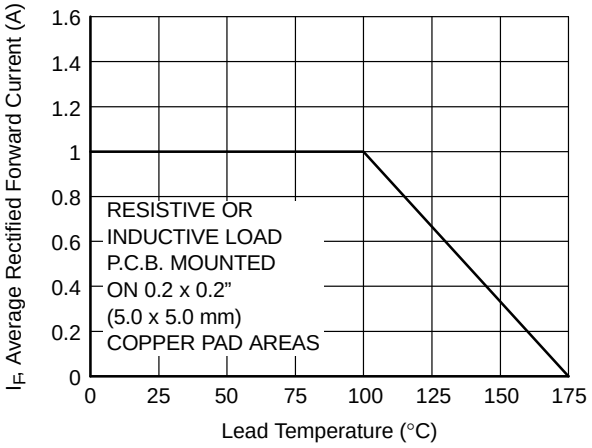


Figure 1. Forward Current Derating Curve

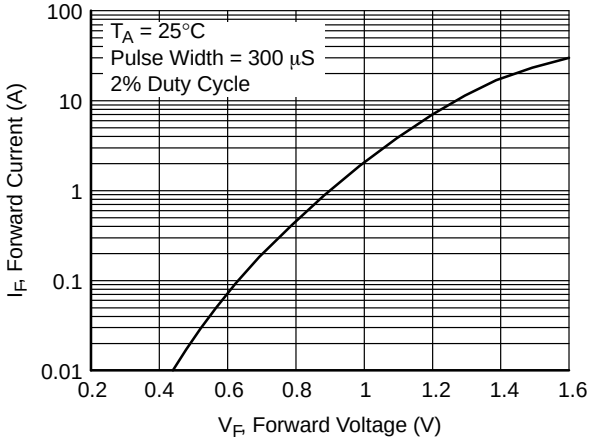


Figure 2. Forward Voltage Characteristics

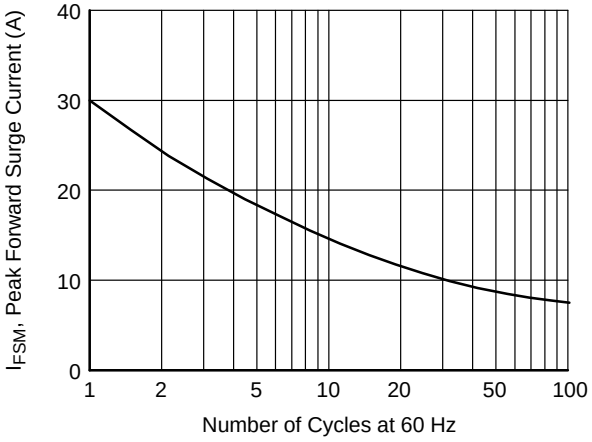


Figure 3. Non−Repetitive Surge Current

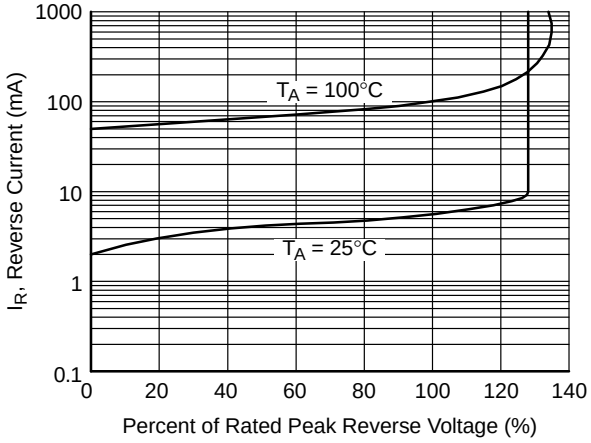


Figure 4. Reverse Current vs. Reverse Voltage

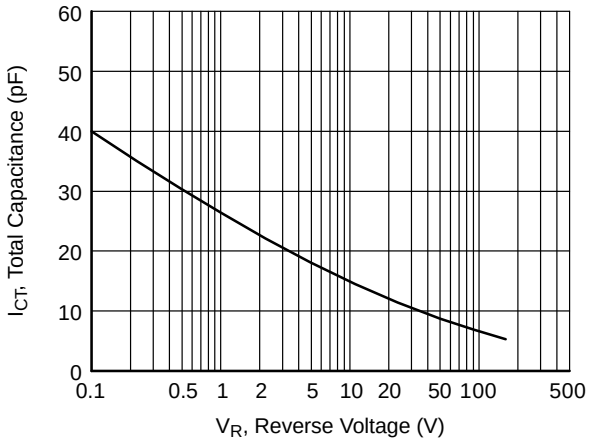
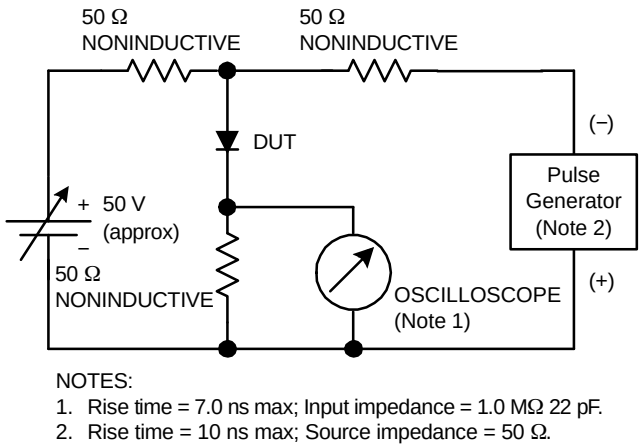


Figure 5. Total Capacitance

REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES:
1. Rise time = 7.0 ns max; Input impedance = 1.0 MΩ 22 pF.
2. Rise time = 10 ns max; Source impedance = 50 Ω.

Figure 6. Test Circuit Diagram

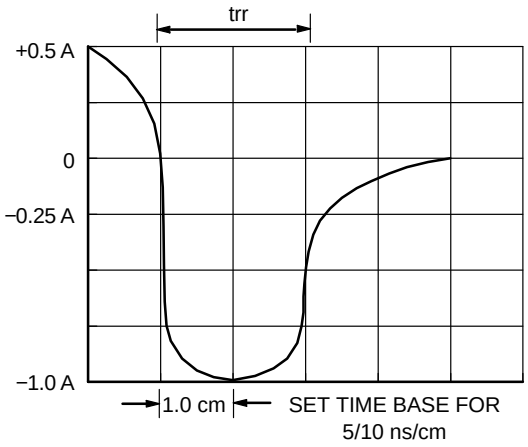


Figure 7. Reverse Recovery Time Characteristic

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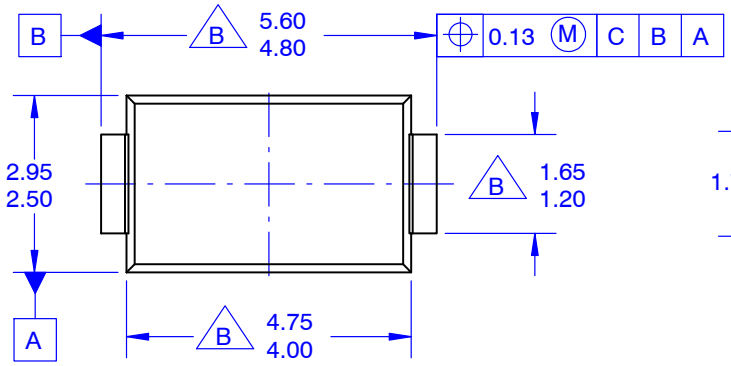
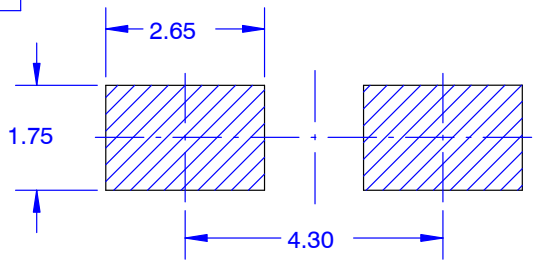
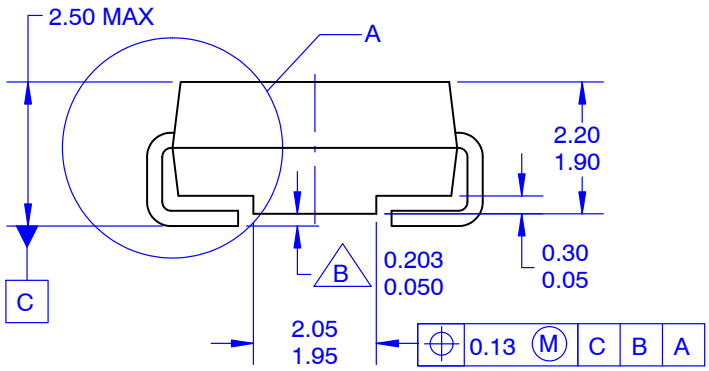
DATE 31 AUG 2016



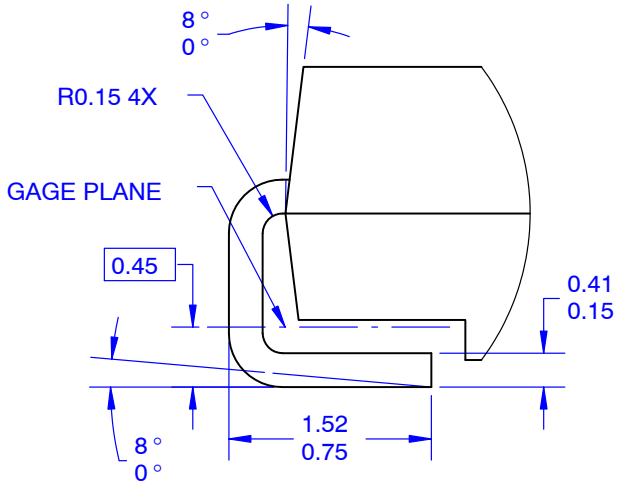
TOP VIEW



LAND PATTERN RECOMMENDATION



SIDE VIEW



DETAIL A
SCALE 20 : 1

NOTES:

A. EXCEPT WHERE NOTED, CONFORMS TO JEDEC DO214 VARIATION AC.
B DOES NOT COMPLY JEDEC STANDARD VALUE.
C. ALL DIMENSIONS ARE IN MILLIMETERS.
D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
E. DIMENSIONS AND TOLERANCE AS PER ASME Y14.5–2009.
E. LAND PATTERN STD. DIOM5025X231M

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