



## EGF1A - EGF1D

### Features

- Low forward voltage drop.
- Low profile package.
- Fast switching for high efficiency.



**SMA/DO-214AC**  
COLOR BAND DENOTES CATHODE

### Fast Rectifiers (Glass Passivated)

#### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value				Units
		1A	1B	1C	1D	
$V_{RRM}$	Maximum Repetitive Reverse Voltage	50	100	150	200	V
$I_{F(AV)}$	Average Rectified Forward Current, @ $T_L = 100^\circ\text{C}$		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				$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-65 to +175				$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	2.0	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient*	85	$^\circ\text{C/W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead*	30	$^\circ\text{C/W}$

\*Device mounted on FR-4 PCB 0.013 mm.

### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Device				Units
		1A	1B	1C	1D	
$V_F$	Forward Voltage @ 1.0 A		1.0			V
$t_{rr}$	Reverse Recovery Time $I_F = 0.5 \text{ A}$ , $I_R = 1.0 \text{ A}$ , $I_{RR} = 0.25 \text{ A}$		50			ns
$I_R$	Reverse Current @ rated $V_R$	$T_A = 25^\circ\text{C}$	10			$\mu\text{A}$
		$T_A = 100^\circ\text{C}$	100			$\mu\text{A}$
$C_T$	Total Capacitance $V_R = 4.0 \text{ V}$ , $f = 1.0 \text{ MHz}$		15			pF

## Typical Characteristics

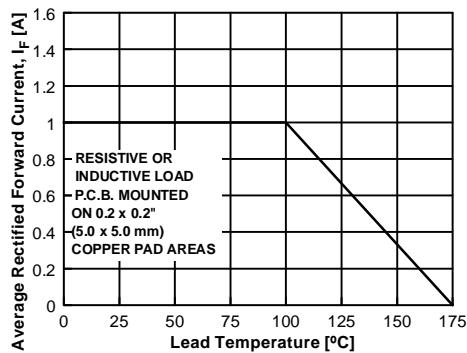


Figure 1. Forward Current Derating Curve

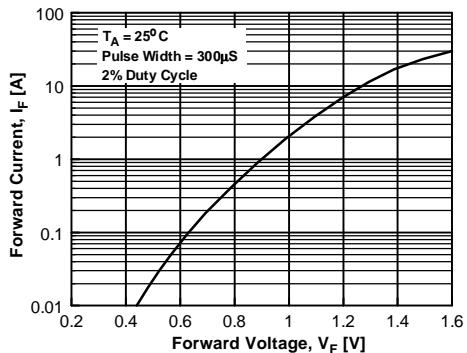


Figure 2. Forward Voltage Characteristics

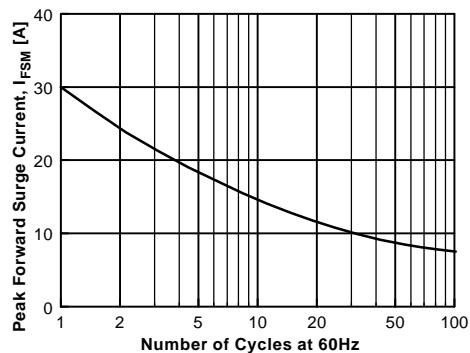


Figure 3. Non-Repetitive Surge Current

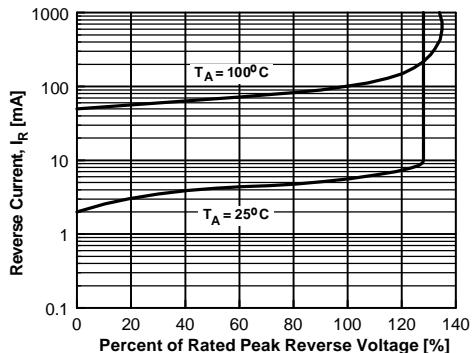


Figure 4. Reverse Current vs Reverse Voltage

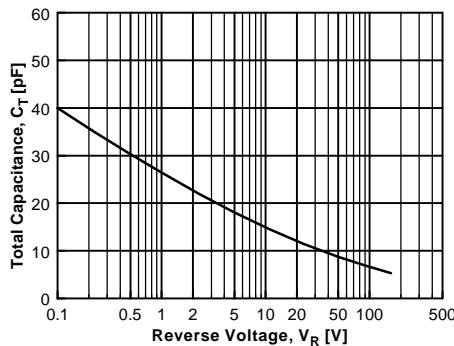
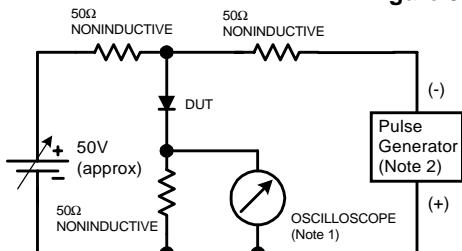
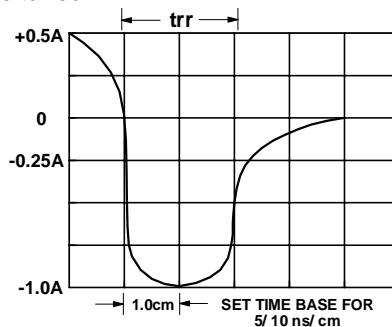


Figure 5. Total Capacitance



NOTES:

1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pF.
2. Rise time = 10 ns max; Source impedance = 50 ohms.



Reverse Recovery Time Characteristic and Test Circuit Diagram

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