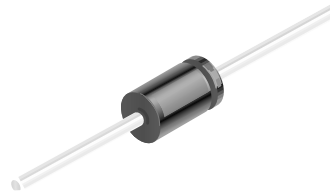


EGP10A - EGP10K

Features

- Superfast recovery time for high efficiency.
- Low forward voltage, high current capability.
- Low leakage current.
- High surge current capability.



DO-41
COLOR BAND DENOTES CATHODE

Fast Rectifiers (Glass Passivated)

Absolute Maximum Ratings*

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

Symbol	Parameter	Value								Units
		10A	10B	10C	10D	10F	10G	10J	10K	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	150	200	300	400	600	800	V
$I_{F(AV)}$	Average Rectified Forward Current, .375 " lead length @ $T_L = 55^\circ\text{C}$	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 +150								$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +150								$^\circ\text{C}$

*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	2.5	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	50	$^\circ\text{C}/\text{W}$

Electrical Characteristics

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

Symbol	Parameter	Device								Units	
		10A	10B	10C	10D	10F	10G	10J	10K		
V_F	Forward Voltage @ 1.0 A	0.95			1.25		1.7			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					75				ns
I_R	Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	5.0				100					μA μA
C_T	Total Capacitance $V_R = 4.0 \text{ V}$, $f = 1.0 \text{ MHz}$	22				15				pF	

Typical Characteristics

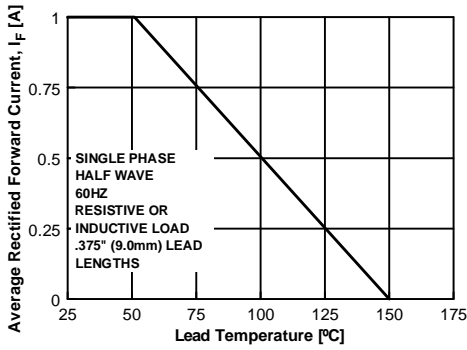


Figure 1. Forward Current Derating Curve

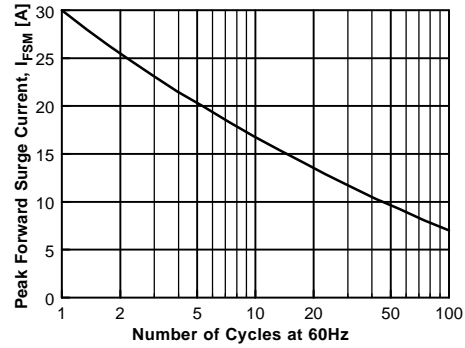


Figure 2. Non-Repetitive Surge Current

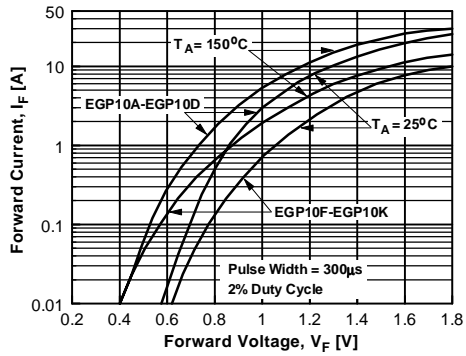


Figure 3. Forward Voltage Characteristics

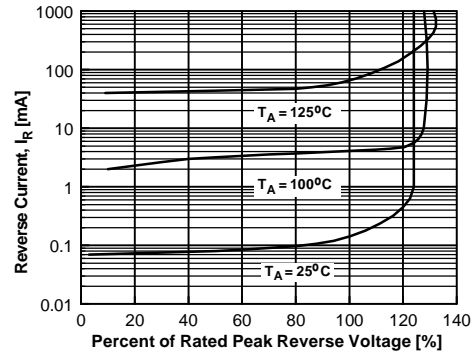


Figure 4. Reverse Current vs Reverse Voltage

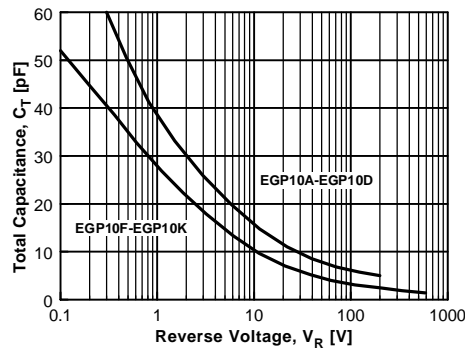
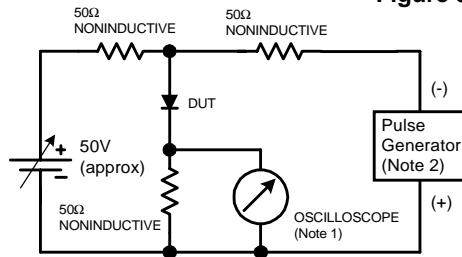
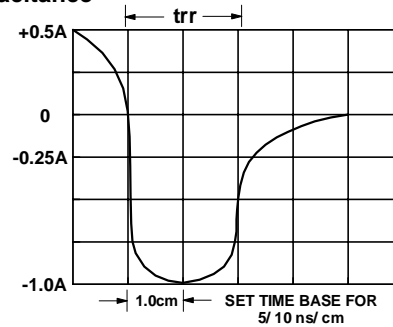


Figure 5. Total Capacitance



- 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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