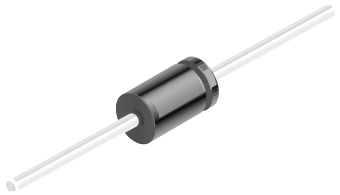
EGP10A - EGP10K

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°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°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								°C
T_J	Operating Junction Temperature	-65 to +150								°C

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

P_D	Power Dissipation	2.5	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	50	°C/W

Electrical Characteristics

T_A = 25°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 A, I_R = 1.0 A, I_{rr} = 0.25 A	50						75		ns
I_R	Reverse Current @ rated V_R T_A = 25°C T_A = 125°C	5.0 100								µA µA
C_T	Total Capacitance V_R = 4.0 V, f = 1.0 MHz	22				15				pF

Typical Characteristics

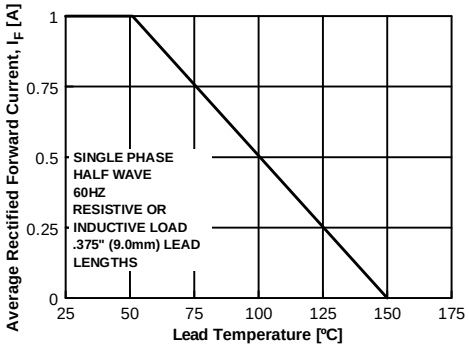


Figure 1. Forward Current Derating Curve

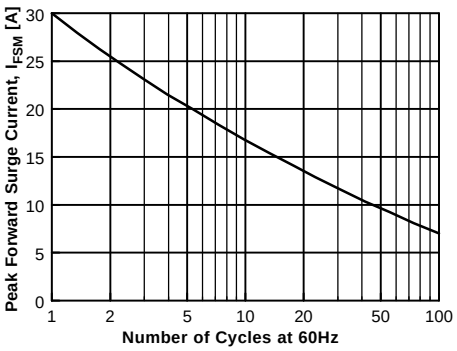


Figure 2. Non-Repetitive Surge Current

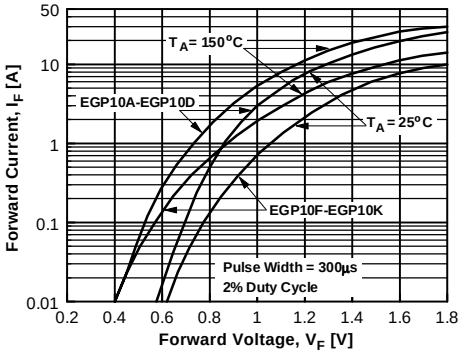


Figure 3. Forward Voltage Characteristics

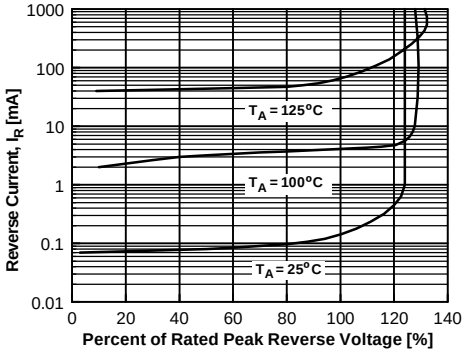


Figure 4. Reverse Current vs Reverse Voltage

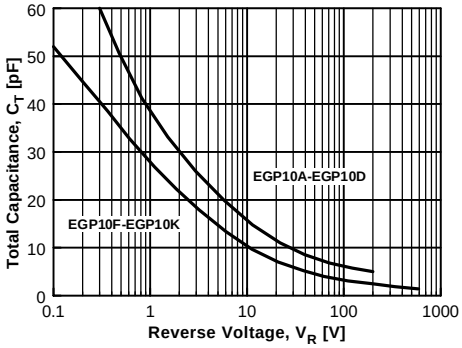
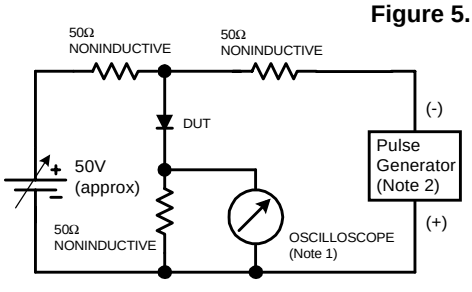
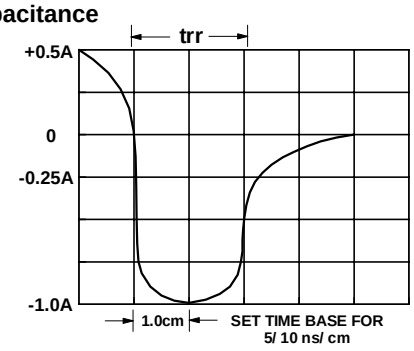


Figure 5. Total Capacitance



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 Characterstic and Test Circuit Diagram

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