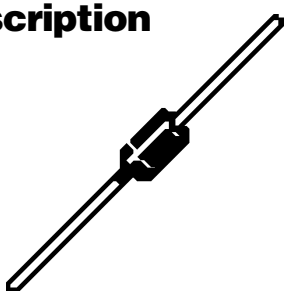
Data Sheet

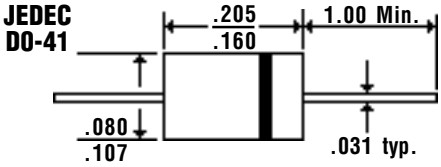
1.0 Amp ULTRA-FAST SWITCHING MEGARECTIFIERS

GUF10A . . . 10M Series

Description



Mechanical Dimensions

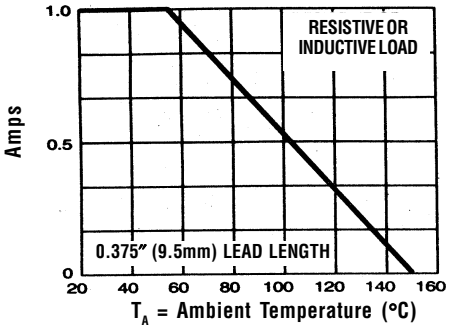


Features

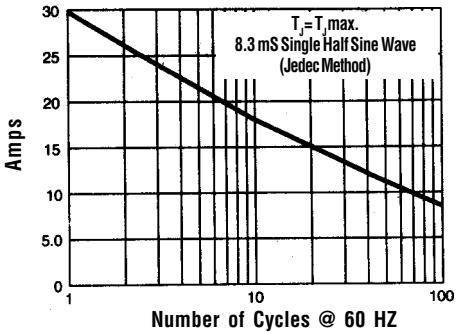
- **HIGH TEMPERATURE METALLURGICALLY BONDED CONSTRUCTION**
- **SINTERED GLASS CAVITY-FREE JUNCTION**
- **1.0 AMP OPERATION @ T_A = 55°C, WITH NO THERMAL RUNAWAY**
- **TYPICAL I_R < 0.2 µAmp**

Electrical Characteristics @ 25°C.	GUF10A . . . 10M Series								Units
Maximum Ratings	GUF 10A	GUF 10B	GUF 10D	GUF 10F	GUF 10G	GUF 10J	GUF 10K	GUF 10M	
Peak Repetitive Reverse Voltage...V_{RRM}	50	100	200	300	400	600	800	1000	Volts
RMS Reverse Voltage...$V_{R(rms)}$	35	70	140	210	280	420	560	700	Volts
DC Blocking Voltage...V_{DC}	50	100	200	300	400	600	800	1000	Volts
Average Forward Rectified Current...$I_{F(av)}$ Current 3/8" Lead Length @ T_A = 55°C	1.0								Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} 8.3mS, ½ Sine Wave Superimposed on Rated Load	30								Amps
Forward Voltage @ Rated Forward Current and 25°C...V_F	< 1.1 >			< 1.4 >		< 1.7 >			Volts
Full Load Reverse Current...I_R(av) Full Cycle Average @ T_A = 55°C	50								µAmps
DC Reverse Current...I_R @ Rated DC Blocking Voltage T_A = 25°C	10								µAmps
T_A = 125°C	50								µAmps
Typical Junction Capacitance...C_J *(Note 1)*	< 17 >				< 15 >				pF
Typical Thermal Resistance...$R_{\theta JC}$ *(Note 2)*	< 50 >				< 60 >				°C/W
Typical Reverse Recovery Time...t_{RR} *(Note 3)*	< 50 >				< 75 >				nS
Operating & Storage Temperature Range...T_J, T_{STRG}	-65 to 175								°C

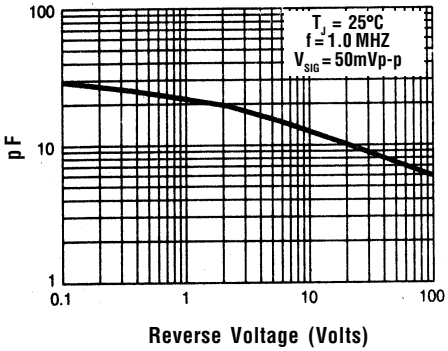
Forward Current Derating Curve



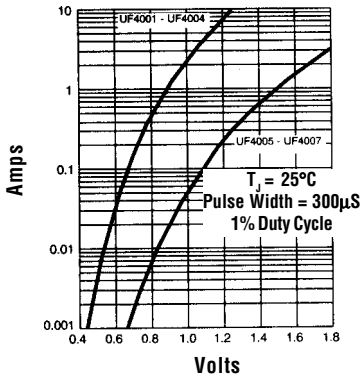
Non-Repetitive Peak Forward Surge Current



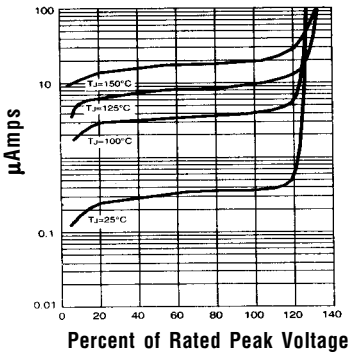
Typical Junction Capacitance



Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 HZ Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

NOTES: 1. Measured @ 1 MHZ and applied reverse voltage of 4.0V.
2. Thermal Resistance from Junction to Ambient at 3/8" Lead Length, P.C. Board Mounted.
3. Reverse Recovery Condition I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.