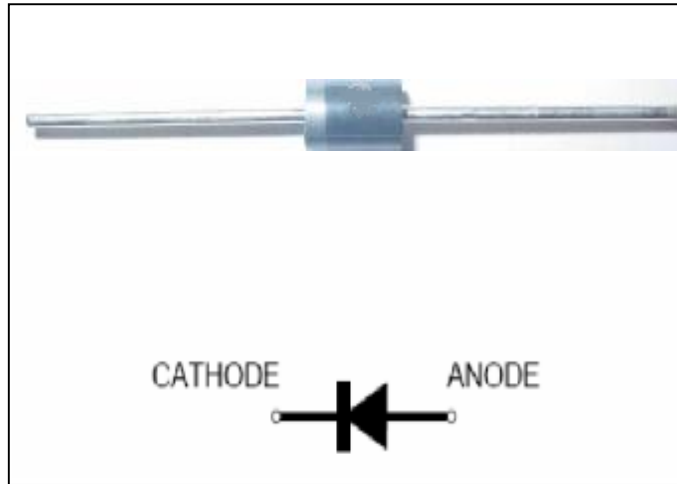


Glass Passivated Junction Ultra Fast Rectifiers Reverse Voltage 50 to 800V Forward Current 1.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High temperature metallurgically bonded construction
- * Glass passivated chip
- * Capable of meeting environmental standards of MIL-S-19500
- * 1.0 A operation at TA=55°C with no thermal runaway
- * For use in high frequency rectifier circuits
- * Ultrafast recovery time for high efficiency
- * Typical IR less than 0.1µA
- * High temperature soldering guaranteed: 350°C/10 seconds
- * 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



Mechanical Data

Case: JEDEC DO-41, molded plastic over glass Die

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.011 oz., 0.284 g

Handling precaution: None

We declare that the material of product compliance with ROHS requirements

1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	UGP 10A	UGP 10B	UGP 10D	UGP 10F	UGP 10G	UGP 10J	UGP 10K	Unit
Making		UGP 10A	UGP 10B	UGP 10D	UGP 10F	UGP 10G	UGP 10J	UGP 10K	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	V
Maximum RSM voltage	V_{RSM}	35	70	140	210	280	420	560	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths at $T_A = 55^\circ\text{C}$	$I_R(AV)$	100							µA
Typical thermal resistance (Note 2)	$R_{\theta JA}$	55							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	UGP 10A	UGP 10B	UGP 10D	UGP 10F	UGP 10G	UGP 10J	UGP 10K	Unit	
Maximum instantaneous forward voltage at 1.0A	V_F	0.95			1.25		1.7	2.2	V	
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	I_R	5.0				100				µA
Typical reverse recovery time (Note 1)	t_{rr}	35								ns
Typical junction capacitance at 4.0V, 1MHz	C_J	15								PF

NOTES:

1. $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

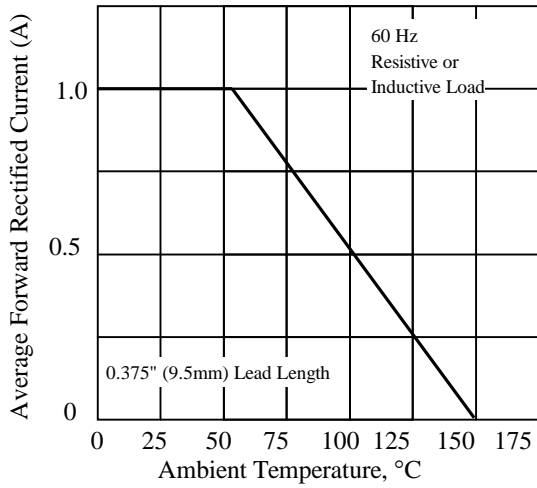


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

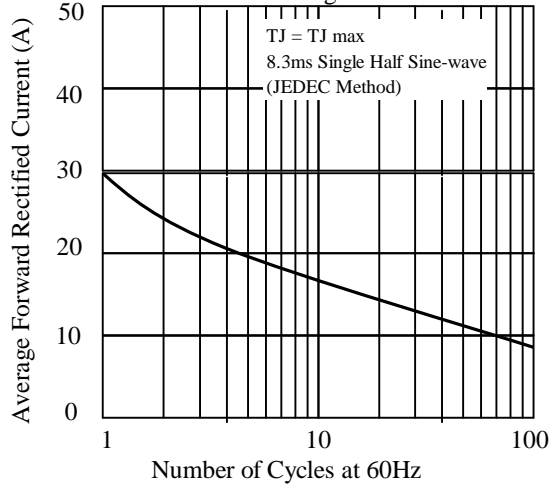


Fig 3. - Typical Instantaneous Forward Characteristics

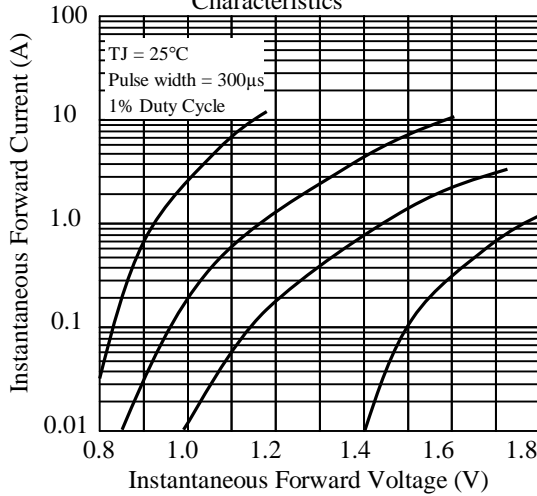


Fig 4. - Typical Reverse Characteristics

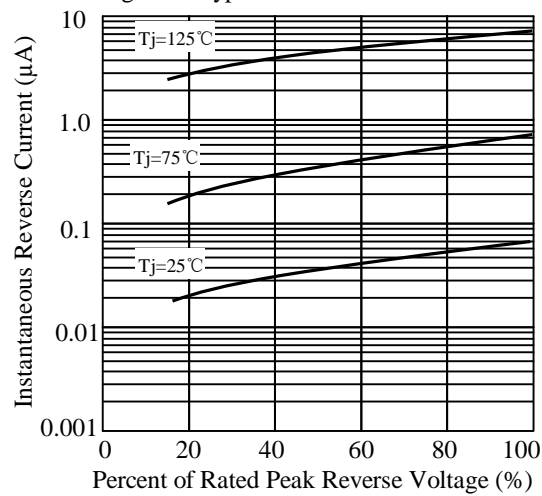


Fig 5. - typical transient thermal impedance

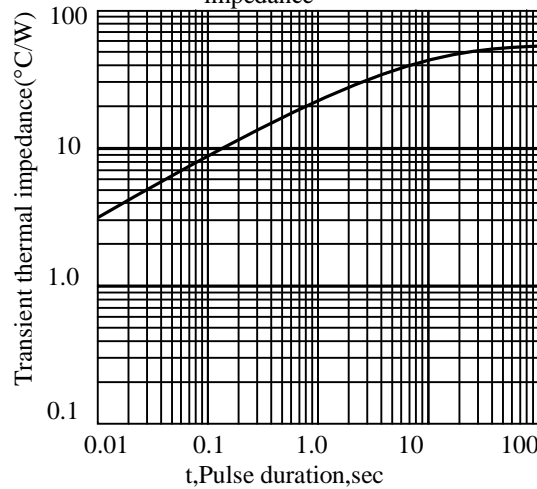
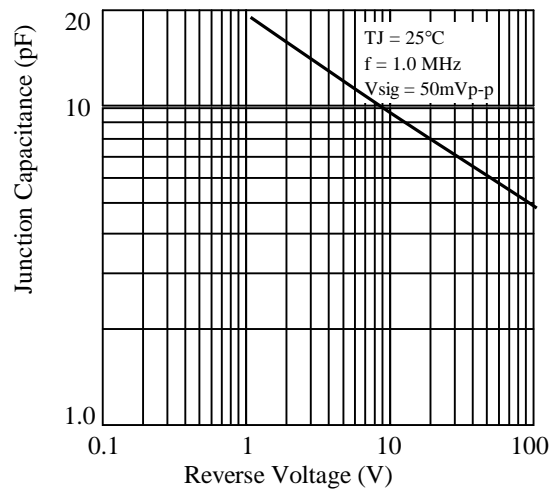


Fig 6. - Typical Junction Capacitance



3. dimension:

