

1N492G thru 1N498G

Glass Passivated Junction Fast Recovery Rectifiers

Reverse Voltage 200 to 1000V
Forward Current 1.0A

1.Feature & Dimensions

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High temperature metallurgically bonded construction
- * Cavity-free glass passivated junction
- * Capable of meeting environmental standards of MIL-S-19500
- * 1.0 A operation at $T_A=75^{\circ}\text{C}$ with no thermal runaway
- * For use in high frequency rectifier circuits
- * Fast switching for high efficiency
- * Typical IR less than $1.0\mu\text{A}$
- * High temperature soldering guaranteed:
260°C/10 seconds
- * 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

2.Mechanical Data

Case: JEDEC DO-41, molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.012 oz., 0.34 g
Handling precaution: None

3.Electrical Characteristic

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

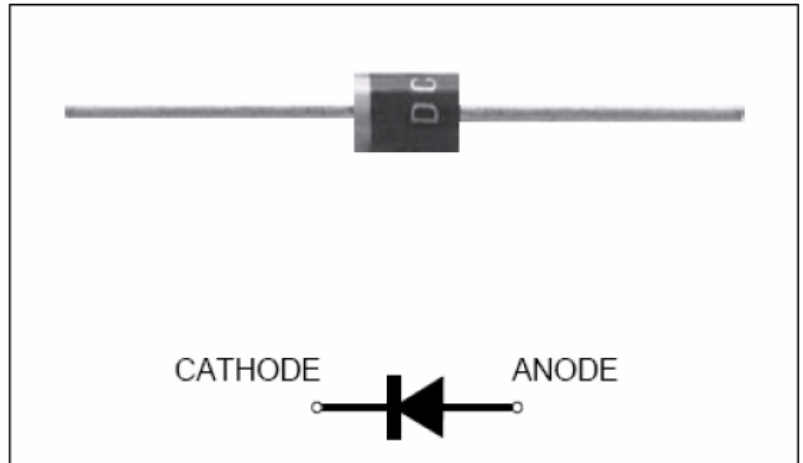
Parameter Symbol	symbol	1N49 42G	1N49 44G	1N49 46G	1N49 47G	1N49 48G	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^{\circ}\text{C}$	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25					A
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50					°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	1N49 42G	1N49 44G	1N49 46G	1N49 47G	1N49 48G	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.3					V
Maximum DC reverse current $T_A = 25^{\circ}\text{C}$ at rated DC blocking voltage $T_A = 125^{\circ}\text{C}$	IR	5.0 100					μA
Typical reverse recovery time (Note 1)	t_{rr}	150	250	500			ns
Typical junction capacitance at 4.0V, 1MHz	CJ	15					PF

NOTES:

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



We declare that the material of product
compliance with RoHS requirements.

4. Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

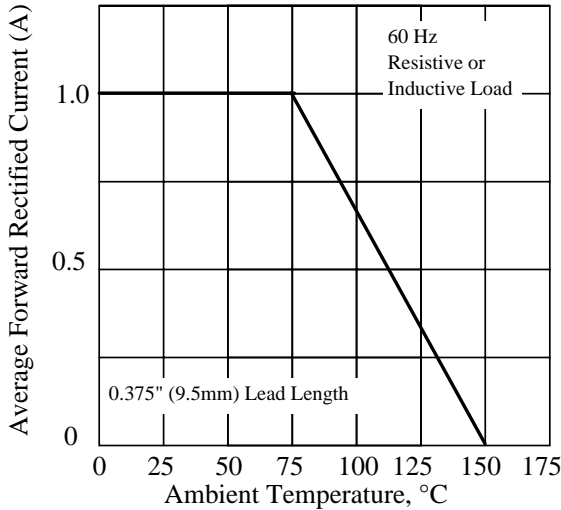


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

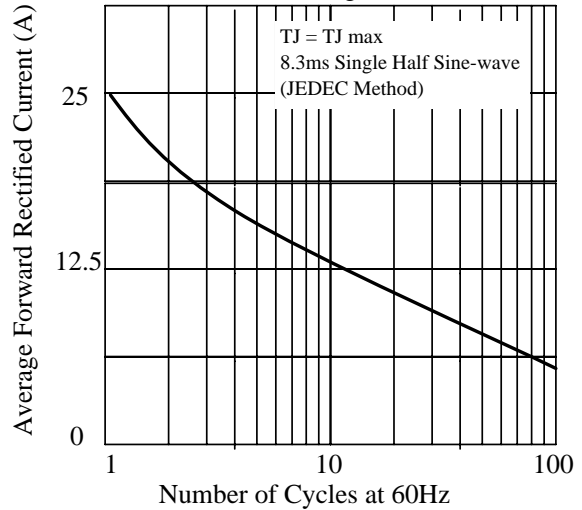


Fig. 3 - Typical Instantaneous Forward Characteristics

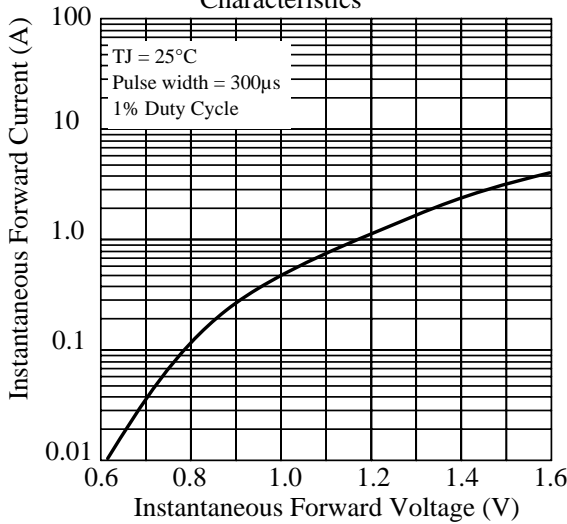


Fig. 4 - Typical Reverse Characteristics

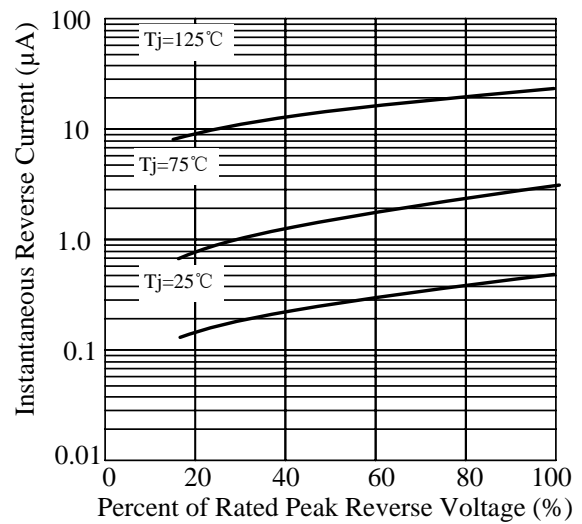


Fig. 5 - typical transient thermal impedance

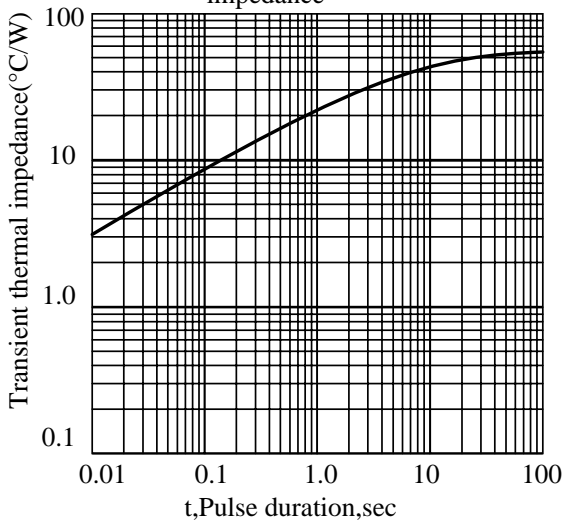
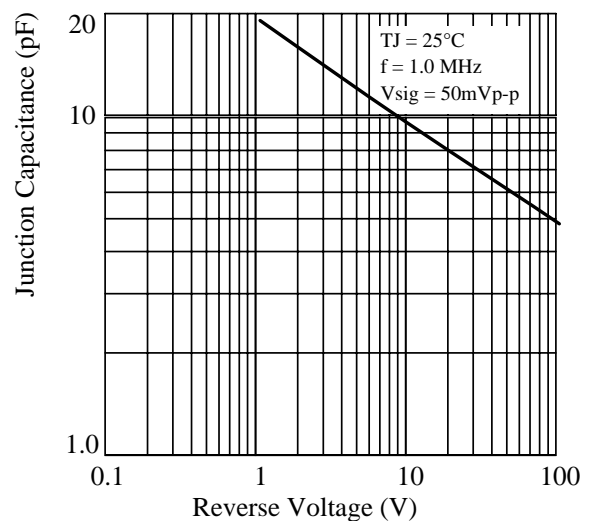


Fig. 6 - Typical Junction Capacitance



5.Package Dimensions in inches and (millimeters)
