

1A1 thru 1A7

1 Feature

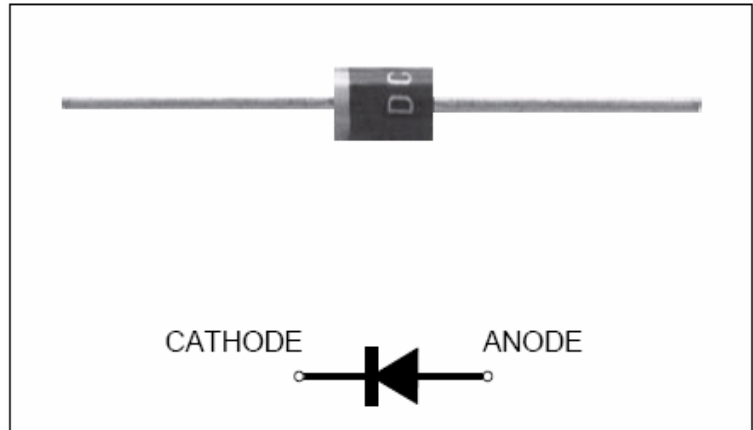
- * Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- * Construction utilizes void-free molded plastic technique
- * Low reverse leakage
- * High forward surge capability
- * Diffused junction
- * High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

2 Mechanical Data

Case: JEDEC R-1, molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.007 oz., 0.20 g
Handling precaution: None

General Purpose Plastic Rectifiers

Reverse Voltage 50 to 1000V
Forward Current 1.0A



3 Electrical Characteristic

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

Parameter Symbol	symbol	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	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
Maximum full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths at $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	30							μA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							$^\circ\text{C}$

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

Parameter Symbol	symbol	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.10							V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	I_R	5.0							μA
Typical junction capacitance at 4.0V, 1MHz	C_J	15							PF

NOTES:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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

Fig. 1 - Forward Current Derating Curve

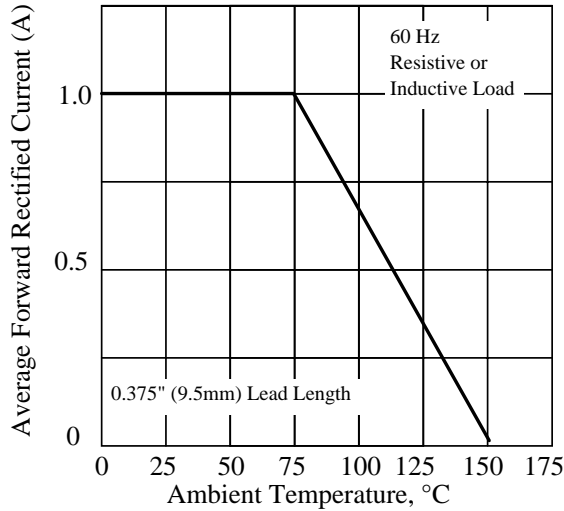


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

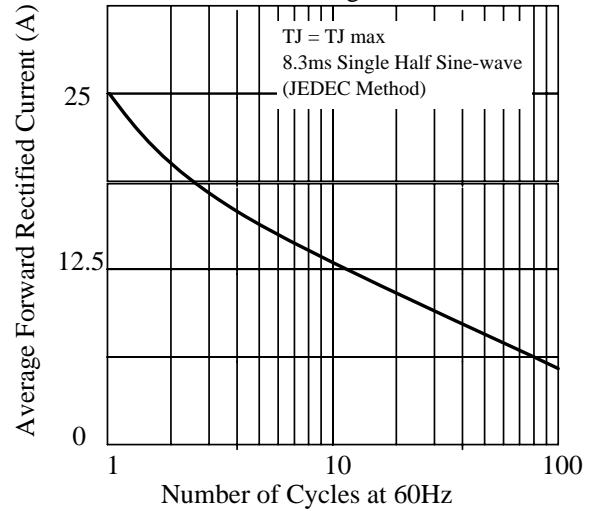


Fig. 3 - Typical Instantaneous Forward Characteristics

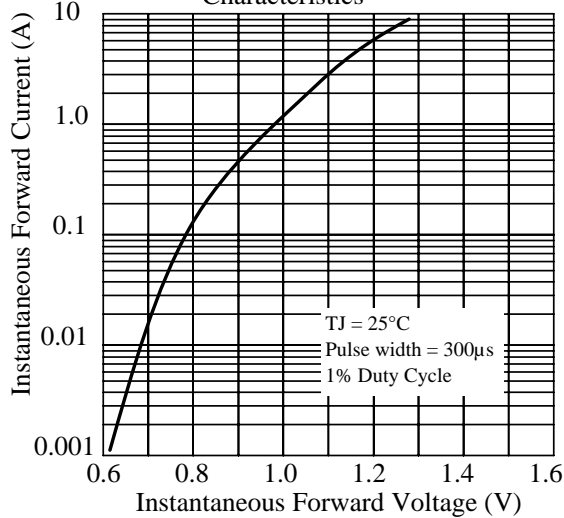


Fig. 4 - Typical Reverse Characteristics

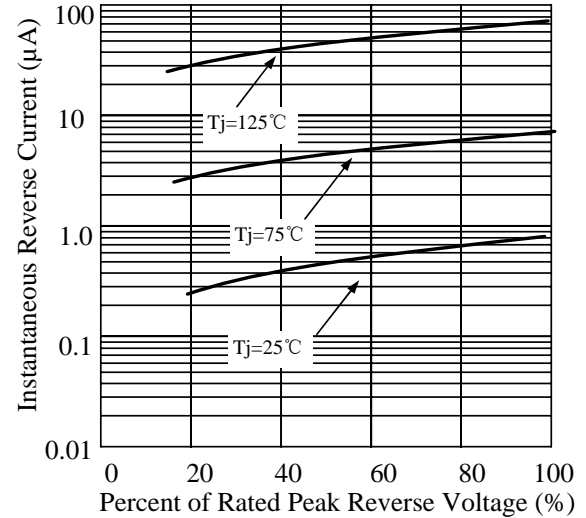


Fig. 5 - typical transient thermal impedance

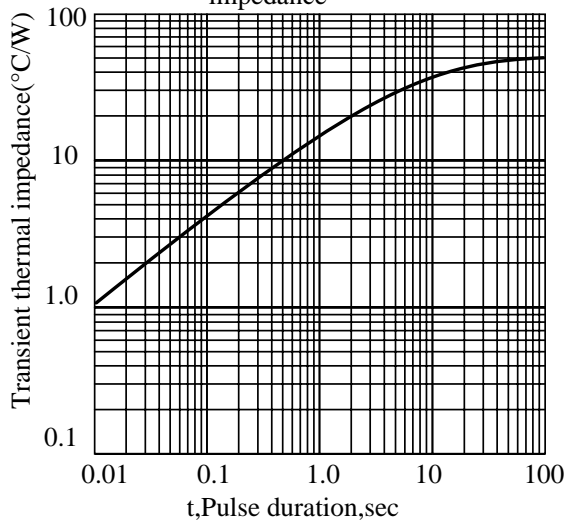
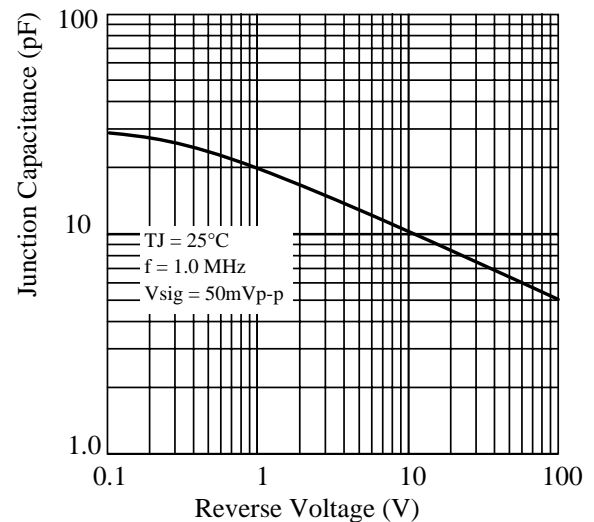


Fig. 6 - Typical Junction Capacitance



5.Package Dimensions in inches and (millimeters)
