

R3000F thru R5000F

1. FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- * Diffused junction
- * Capable of meeting environmental standards of MIL-S-19500
- * High temperature soldering guaranteed: 260°C/10 seconds

2. Mechanical Data

Case: JEDEC DO-15, molded plastic body

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

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.015 oz., 0.40 g

Handling precaution: None

3. Electrical Characteristic

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

Parameter Symbol	symbol	R 3000F	R 4000F	R 5000F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	2500	4000	5000	V
Maximum RMS voltage	V_{RMS}	1750	2800	3500	V
Maximum DC blocking voltage	V_{DC}	2500	4000	5000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 50^\circ\text{C}$	$I_F(AV)$	0.2			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25	15		A
Typical thermal resistance (Note 2)	$R_{\theta JA}$	35			°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.

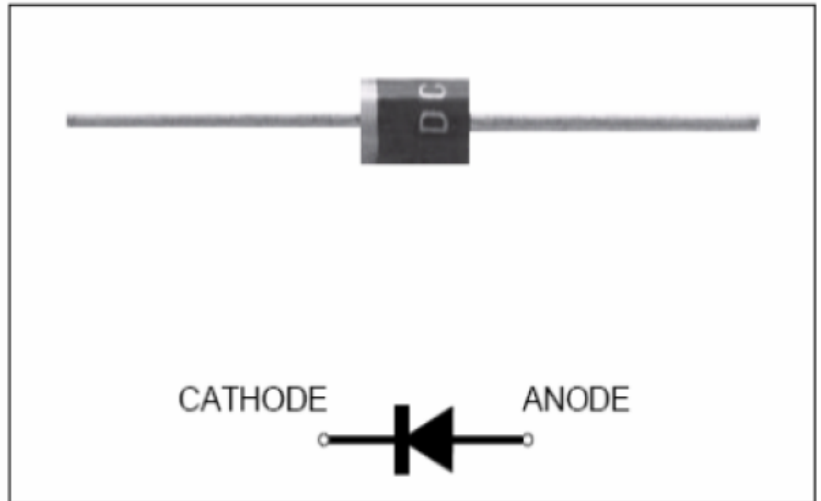
Parameter Symbol	symbol	R 3000F	R 4000F	R 5000F	Unit
Maximum instantaneous forward voltage at $I_F(AV)$	V_F	4.0	5.0		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	I_R	5.0 200			μA
Typical reverse recovery time (Note 1)	t_{rr}	500			ns
Typical junction capacitance at 4.0V, 1MHz	C_J	15			PF

NOTES:

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

HIGH VOLTAGE FAST RECOVERY RECTIFIERS

Reverse Voltage 2500 to 5000V
Forward Current 0.2A



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

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

Fig. 1 - Forward Current Derating Curve

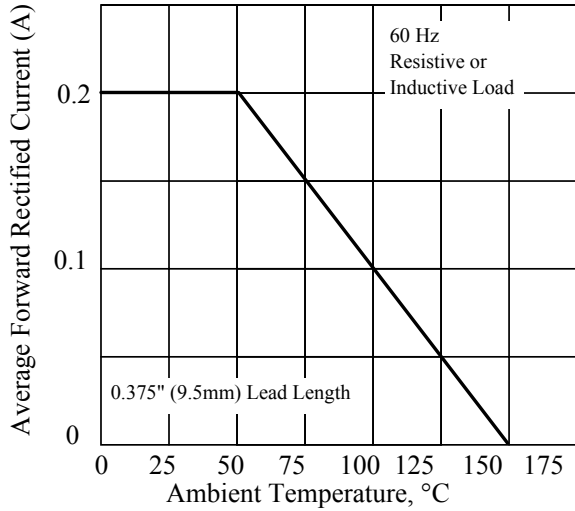


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

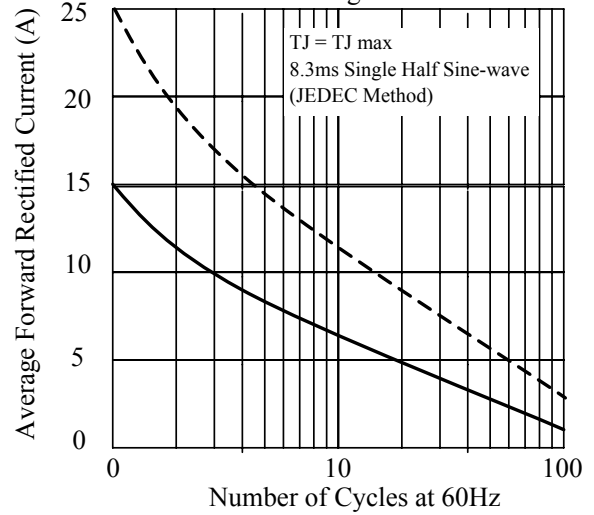


Fig 3. - Typical Instantaneous Forward Characteristics

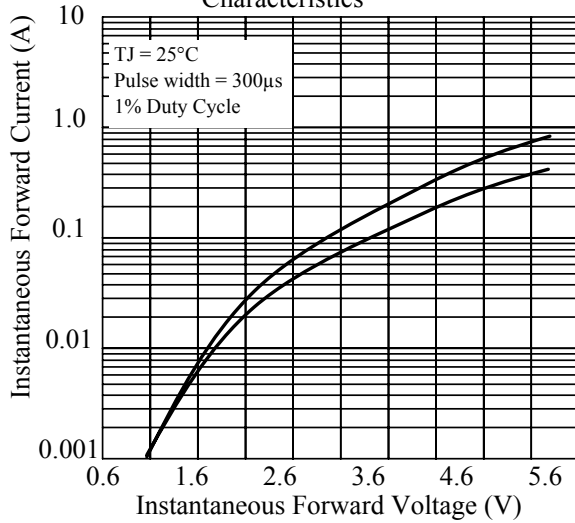


Fig 4. - Typical Reverse Characteristics

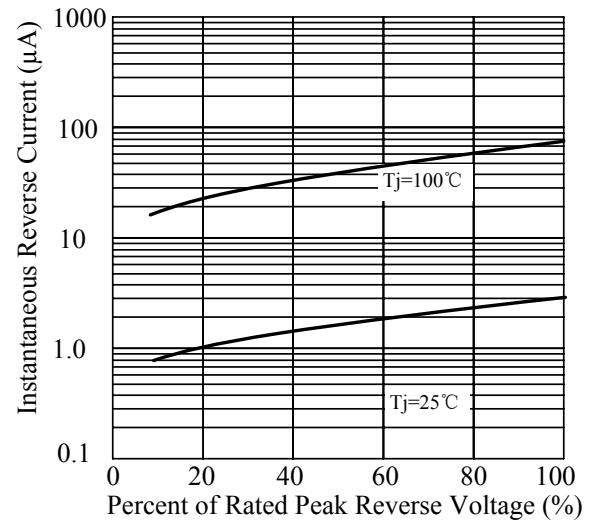


Fig 5. - typical transient thermal impedance

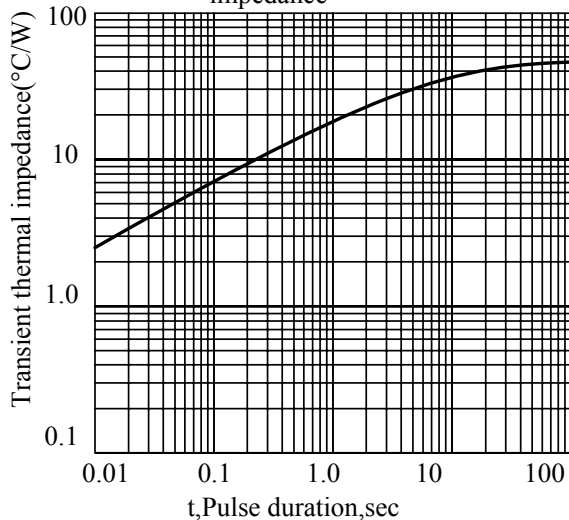
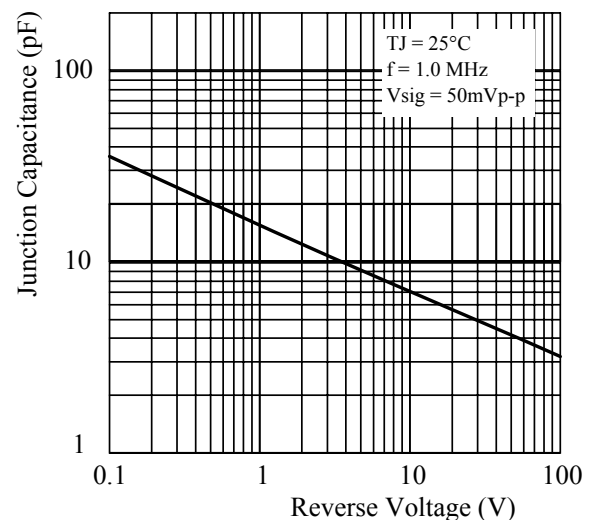


Fig 6. - Typical Junction Capacitance



5.Package Dimensions in inches and (millimeters)
