
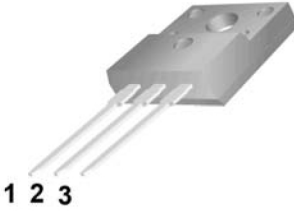
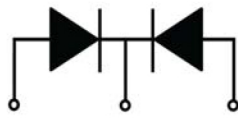


<p>Features:</p> <ul style="list-style-type: none"> <input type="checkbox"/> High surge capacity <input type="checkbox"/> Low Forward Voltage Drop. <input type="checkbox"/> High Current Capability. <input type="checkbox"/> Super Fast Switching Speed For High Efficiency 	<div style="text-align: right;">  </div> <p style="text-align: center;">TO-220AB</p>   <p style="text-align: center;">1. Anode 2. Cathode 3. Anode</p>
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Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	UF1004	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
Working Peak Reverse Voltage	V_{RWM}	280	V
DC Blocking Voltage	$V_{R(DC)}$	400	V
Average Rectified Forward Current Total Device, (Rated V_R), $T_C = 150^\circ\text{C}$	$I_{F(AV)}$	5	A
Per Leg Total Device		10	
Peak Rectified Forward Current Per Diode Leg (Rated V_R , Square Wave, 20 kHz), $T_C = 150^\circ\text{C}$	I_{FM}	10	A
Nonrepetitive Peak Surge Current(Surge applied at rated load conditions half wave, single phase, 60 Hz)	I_{FSM}	100	A
Operating Junction Temperature and Storage Temperature	TJ, Tstg	-65 to +175	°C
Maximum Thermal Resistance, Junction-to-Case(Per Leg)	$R_{\theta JC}$	2.0	°C/W

ELECTRICAL CHARACTERISTICS (Per Diode Leg)

Parameter	Symbol	UF1004	Unit
Forward Voltage (Note 1) ($I_F = 5\text{A}$, $T_C = 25^\circ\text{C}$) ($I_F = 5\text{A}$, $T_C = 150^\circ\text{C}$)	V_F	1.50 1.20	V
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 150^\circ\text{C}$)	I_R	10 500	μA
Maximum Reverse Recovery Time ($I_F = 1.0\text{A}$, $di/dt = 50\text{A}/\mu\text{s}$) ($I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{REC} = 0.25\text{A}$)	T_{RR}	35 30	ns

Note 1. Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$

Typical Characteristics

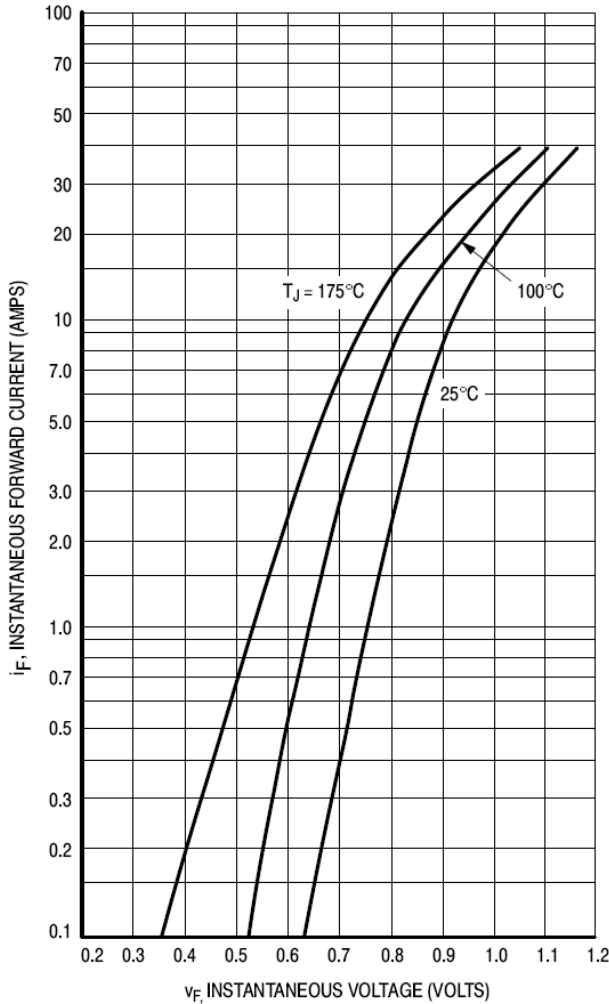


Figure 1. Typical Forward Voltage, Per Leg

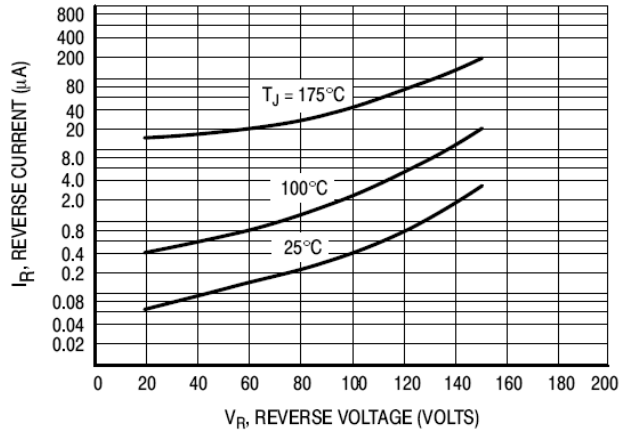


Figure 2. Typical Reverse Current, Per Leg*

* The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R .

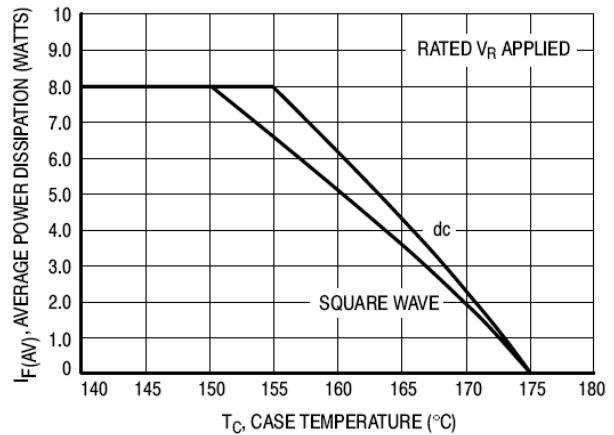


Figure 3. Current Derating, Case, Per Leg

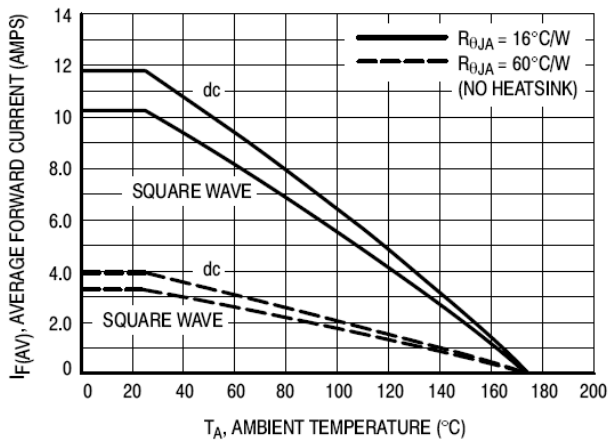


Figure 4. Current Derating, Ambient, Per Leg

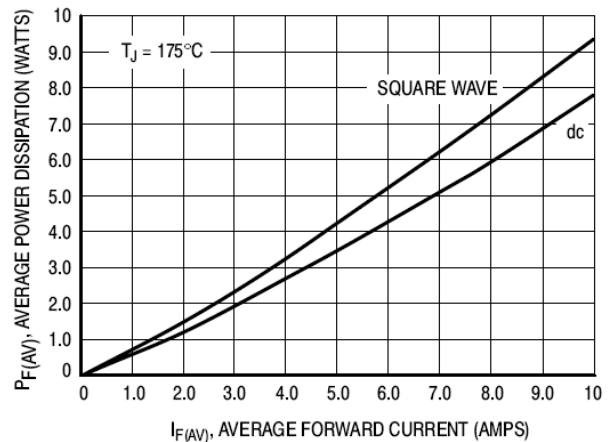


Figure 5. Power Dissipation, Per Leg

