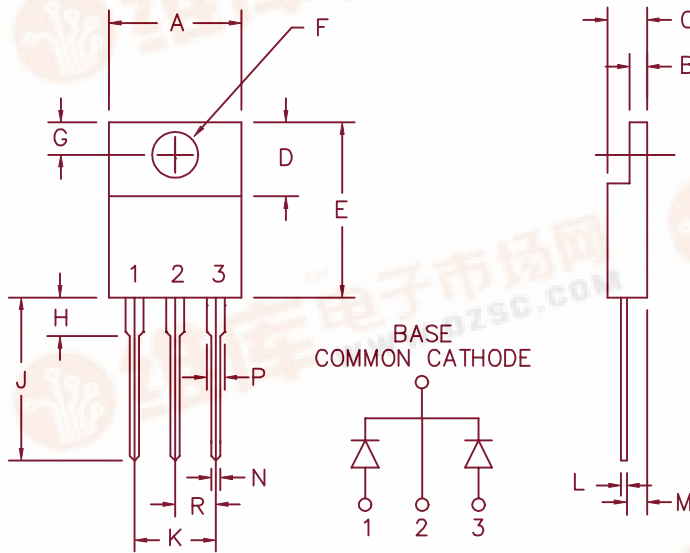


# Ultra Fast Recovery Rectifiers

## UFT1230 — UFT1250



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.390	.415	9.91	10.54	
B	.045	.055	1.14	1.40	
C	.180	.190	4.57	4.83	
D	.245	.260	6.22	6.60	
E	.550	.650	13.97	16.51	
F	.139	.161	3.53	4.09	Dia.
G	.100	.135	2.54	3.43	
H	---	.250	---	6.35	
J	.500	.580	12.70	14.73	
K	.190	.210	4.83	5.33	
L	.014	.022	.357	.559	
M	.080	.115	2.03	2.92	
N	.015	.040	.380	1.02	
P	.045	.070	1.14	1.78	
R	.090	.110	2.29	2.79	

### PLASTIC TO-220AB

Microsemi Catalog Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
UFT1230	300V	300V
UFT1240	400V	400V
UFT1250	500V	500V

- Ultra Fast Recovery Rectifier
- 175°C Junction Temperature
- $V_{RRM}$  300 TO 500 Volts
- 2 x 6 Amps current rating
- $t_{RR}$  50 nsec maximum

Electrical Characteristics		
Average forward current per pkg	$I_F(AV)$ 12 Amps	$T_C = 160^\circ C$ , Square wave, $R_{\theta JC} = 1^\circ C/W$
Average forward current per leg	$I_F(AV)$ 6 Amps	$T_C = 160^\circ C$ , Square wave, $R_{\theta JC} = 2^\circ C/W$
Maximum surge current	$I_{FSM}$ 125 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max peak forward voltage	$V_{FM}$ 1.2 Volts	$I_{FM} = 6A; T_J = 25^\circ C^*$
Max reverse recovery time	$t_{RR}$ 50 ns	1/2A, 1A, 1/4A, $T_J = 25^\circ C$
Max peak reverse current	$I_{RM}$ 10 $\mu A$	$V_{RRM}, T_J = 25^\circ C$
Typical junction capacitance	$C_J$ 28pF	$V_R = 10V, T_J = 25^\circ C$

\*Pulse test: Pulse width 300  $\mu$ sec, Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temp range	$T_{STG}$	-55°C to 175°C
Operating junction temp range	$T_J$	-55°C to 175°C
Max thermal resistance per leg	$R_{\theta JC}$	2.0°C/W Junction to Case
Max thermal resistance per pkg.	$R_{\theta JC}$	1.0°C/W Junction to Case
Mounting torque		10-15 inch pounds
Weight		0.08 ounces (2.3 grams) typical



# UFT1230 – UFT1250

Figure 1  
Typical Forward Characteristics – Per Leg

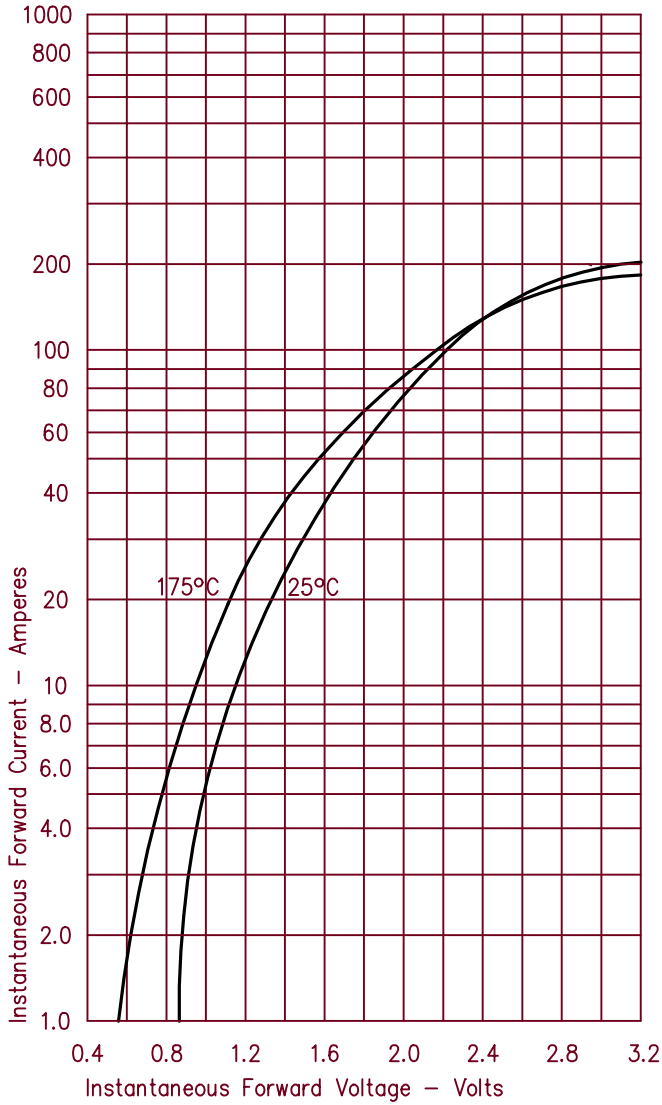


Figure 3  
Typical Junction Capacitance – Per Leg

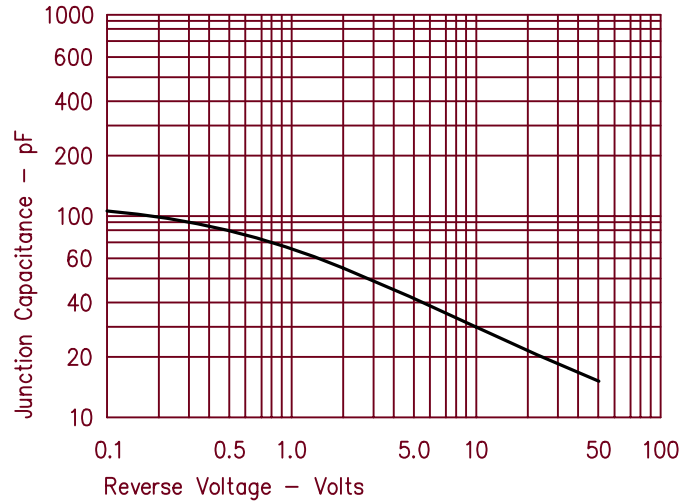


Figure 4  
Forward Current Derating – Per Leg

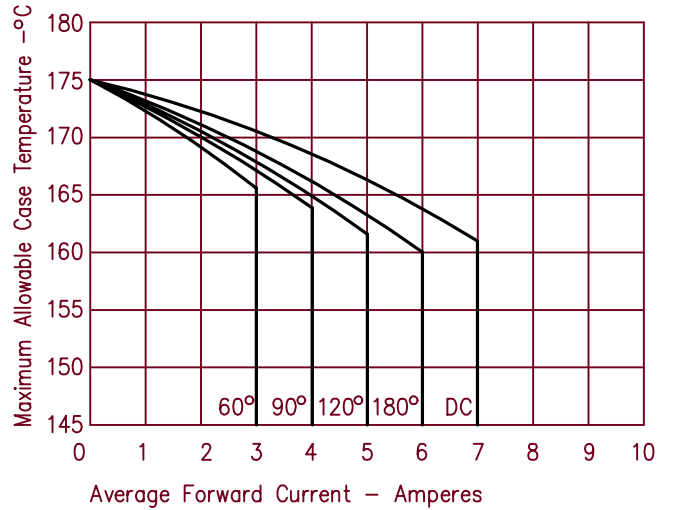


Figure 2  
Typical Reverse Characteristics – Per Leg

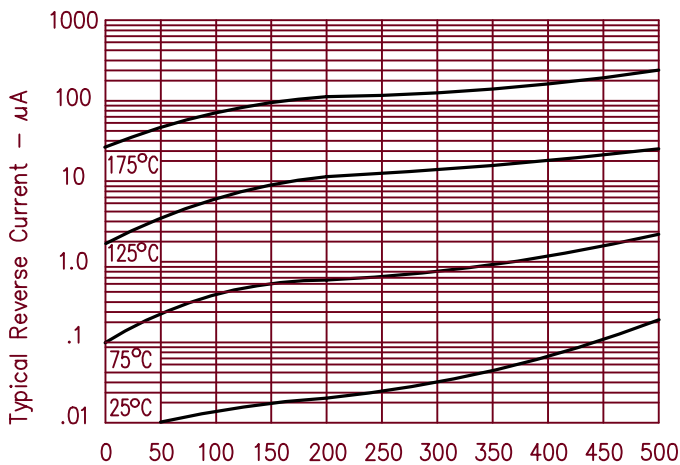


Figure 5  
Maximum Forward Power Dissipation – Per Leg

