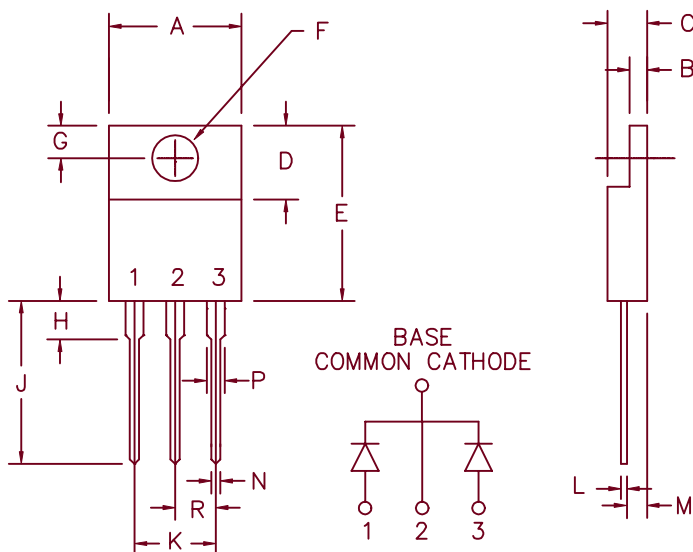


# Ultra Fast Recovery Rectifiers UFT2030 — UFT2050



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

UFT2030  
UFT2040  
UFT2050

Repetitive Peak  
Reverse Voltage

300V  
400V  
500V

Transient Peak  
Reverse Voltage

300V  
400V  
500V

- Ultra Fast Recovery Rectifier
- 175°C Junction Temperature
- $V_{RRM}$  300 TO 500 Volts
- 2 x 10 Amps current rating
- $t_{RR}$  50 nsec maximum

## Electrical Characteristics

Average forward current per pkg  
Average forward current per leg  
Maximum surge current  
Max peak forward voltage  
Max reverse recovery time  
Max peak reverse current  
Typical junction capacitance

$I_F(AV)$  20 Amps  
 $I_F(AV)$  10 Amps  
 $I_{FSM}$  200 Amps  
 $V_{FM}$  1.15 Volts  
 $t_{RR}$  50 ns  
 $I_{RM}$  10  $\mu$ A  
 $C_J$  45pF

$T_C = 151^\circ\text{C}$ , Square wave,  $R_{\theta JC} = 1^\circ\text{C/W}$   
 $T_C = 151^\circ\text{C}$ , Square wave,  $R_{\theta JC} = 2^\circ\text{C/W}$   
8.3ms, half sine,  $T_J = 175^\circ\text{C}$   
 $I_{FM} = 10\text{A}; T_J = 25^\circ\text{C}^*$   
1/2A, 1A, 1/4A,  $T_J = 25^\circ\text{C}$   
 $V_{RRM}, T_J = 25^\circ\text{C}$   
 $V_R = 10\text{V}, T_J = 25^\circ\text{C}$

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

## Thermal and Mechanical Characteristics

Storage temp range  
Operating junction temp range  
Max thermal resistance per leg  
Max thermal resistance per pkg.  
Mounting torque  
Weight

$T_{STG}$   
 $T_J$   
 $R_{\theta JC}$   
 $R_{\theta JC}$

$-55^\circ\text{C}$  to  $175^\circ\text{C}$   
 $-55^\circ\text{C}$  to  $175^\circ\text{C}$   
 $2.0^\circ\text{C/W}$  Junction to Case  
 $1.0^\circ\text{C/W}$  Junction to Case  
10-15 inch pounds  
0.08 ounces (2.3 grams) typical

# UFT2030 – UFT2050

Figure 1  
Typical Forward Characteristics – Per Leg

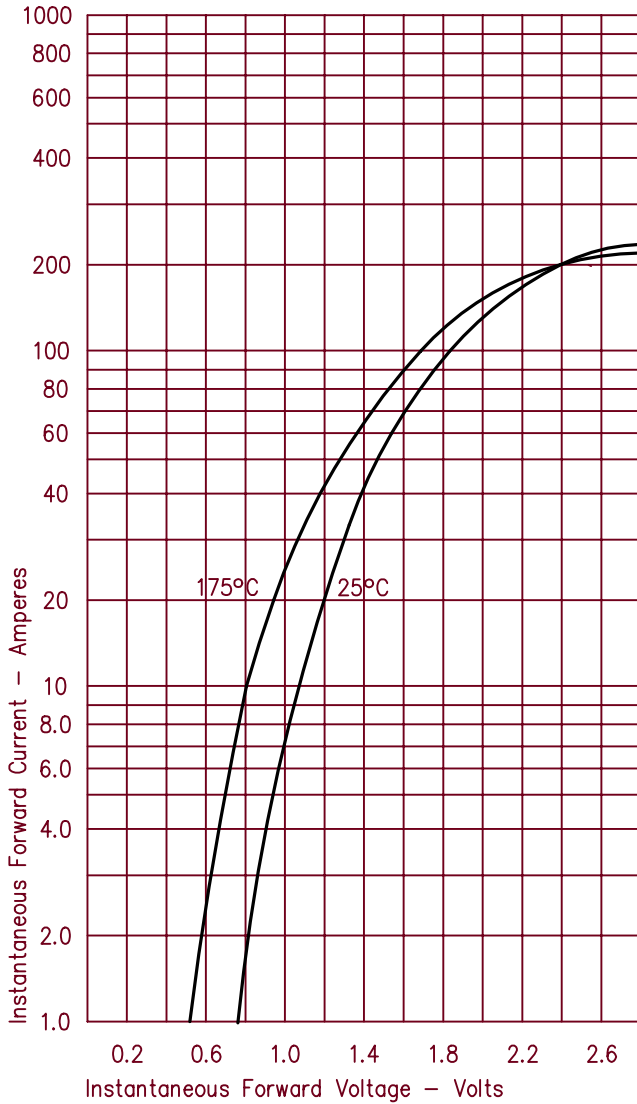


Figure 3  
Typical Junction Capacitance – Per Leg

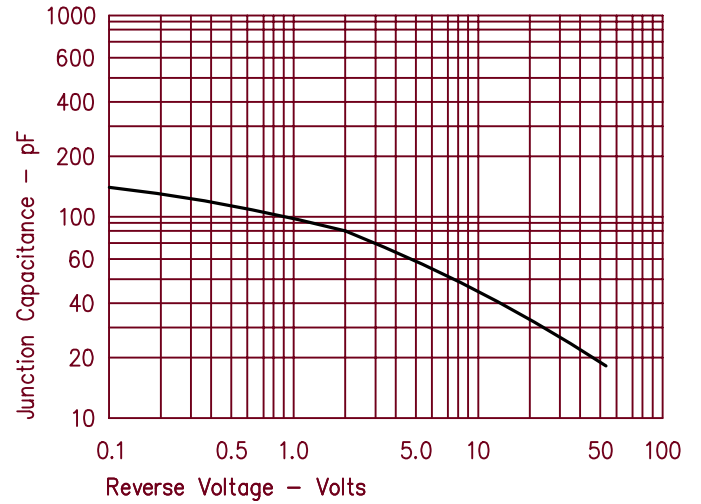


Figure 4  
Forward Current Derating – Per Leg

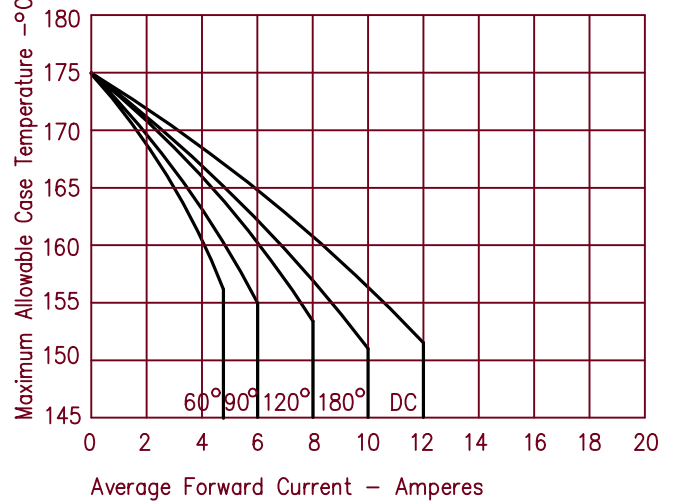


Figure 2  
Typical Reverse Characteristics – Per Leg

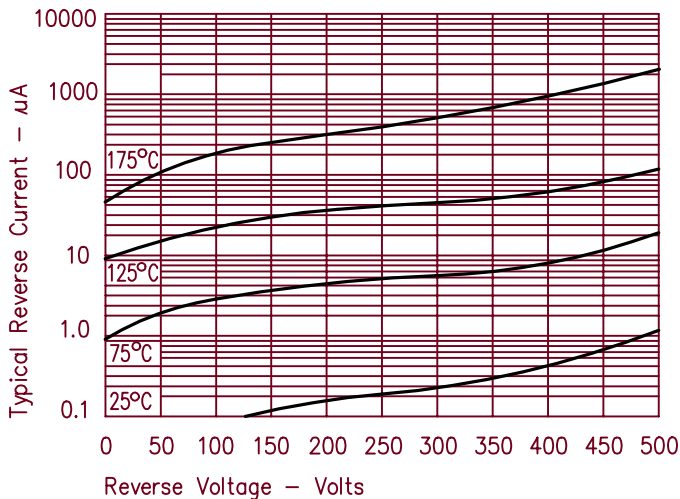


Figure 5  
Maximum Forward Power Dissipation – Per Leg

