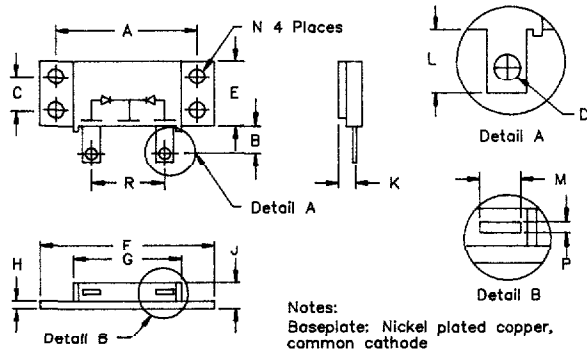


# Ultrafast Recovery Modules UFT 150, 151 & 152



Notes:  
Baseplate: Nickel plated copper,  
common cathode  
Pins: Nickel plated copper

Dim. Inches		Millimeters		Notes
Min.	Max.	Min.	Max.	
A	1.995	2.005	50.67	50.93
B	0.300	0.325	7.62	8.26
C	0.495	0.505	12.57	12.83
D	0.182	0.192	4.62	4.88 Dia.
E	0.990	1.010	25.15	25.65
F	2.390	2.410	60.71	61.21
G	1.490	1.510	37.85	38.35
H	0.120	0.130	3.05	3.30
J	---	0.400	---	10.16
K	0.240	0.260	6.10	6.60 to Lead Cl
L	0.490	0.510	12.45	12.95
M	0.330	0.350	8.38	8.90
N	0.175	0.195	4.45	4.95 Dia.
P	0.035	0.045	0.89	1.14
R	0.890	0.910	22.61	23.11



Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UFT15005*	50V	50V
UFT15010*	100V	100V
UFT15015*	150V	150V
UFT15020*UFT15120*	200V	200V
UFT15130*	300V	300V
UFT15140*	400V	400V
UFT15250*UFT15150*	500V	500V
UFT15260*	600V	600V
UFT15270*	700V	700V
UFT15280*	800V	800V

Add Suffix A for Common Anode, D for Doubler

- Ultra Fast Recovery
- 175°C Junction Temperature
- VRRM 50 to 800 Volts
- High surge capacity
- 2 X 75 Amp current rating

Electrical Characteristics				
	UFT150	UFT151	UFT152	
Average forward current per pkg	I <sub>F(AV)</sub> 150A	150A	150A	Square Wave
Average forward current per leg	I <sub>F(AV)</sub> 75A	75A	75A	Square Wave
Case Temperature	T <sub>C</sub> 120°C	100°C	95°C	R <sub>θJC</sub> = 0.85°C/W
Maximum surge current per leg	I <sub>FSM</sub> 1000A	800A	700A	8.3ms, half sine, T <sub>J</sub> = 175°C
Max peak forward voltage per leg	V <sub>FM</sub> .975V	1.25V	1.35V	I <sub>FM</sub> = 70A; T <sub>J</sub> = 25°C*
Max reverse recovery time per leg	t <sub>rr</sub> 50ns	60ns	75ns	1/2A, 1A, 1/4A, T <sub>J</sub> = 25°C
Typical reverse recovery time per leg	t <sub>rr</sub> 30ns	45ns	50ns	1/2A, 1A, 1/4A, T <sub>J</sub> = 25°C
Max reverse recovery time per leg	t <sub>rr</sub> 60ns	70ns	95ns	70A, 130A/us, T <sub>J</sub> = 25°C
Max peak reverse current per leg	I <sub>RM</sub> ---	3.0mA	---	V <sub>RRM</sub> , T <sub>J</sub> = 125°C*
Max peak reverse current per leg	I <sub>RM</sub> ---	25μA	---	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical Junction capacitance	C <sub>J</sub> 300pF	150pF	150pF	V <sub>R</sub> = 10V, T <sub>J</sub> = 25°C

\*Pulse test: Pulse width 300 usec, Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temp range	T <sub>STG</sub>	-40°C to 175°C
Operating junction temp range	T <sub>J</sub>	-40°C to 175°C
Max thermal resistance per leg	R <sub>θJC</sub>	0.85°C/W Junction to case
per package	R <sub>θJC</sub>	0.425°C/W Junction to case
Typical thermal resistance per leg	R <sub>θJC</sub>	0.8°C/W Junction to case
Typical thermal resistance	R <sub>θCS</sub>	0.1°C/W Case to sink
Mounting Torque		15 inch pounds maximum
Weight		2.5 ounces (71 grams) typical

**Microsemi Corp.**  
**Colorado**

PH: 303-469-2161  
FAX: 303-466-3775

# UFT 150

Figure 1  
Typical Forward Characteristics - Per Leg

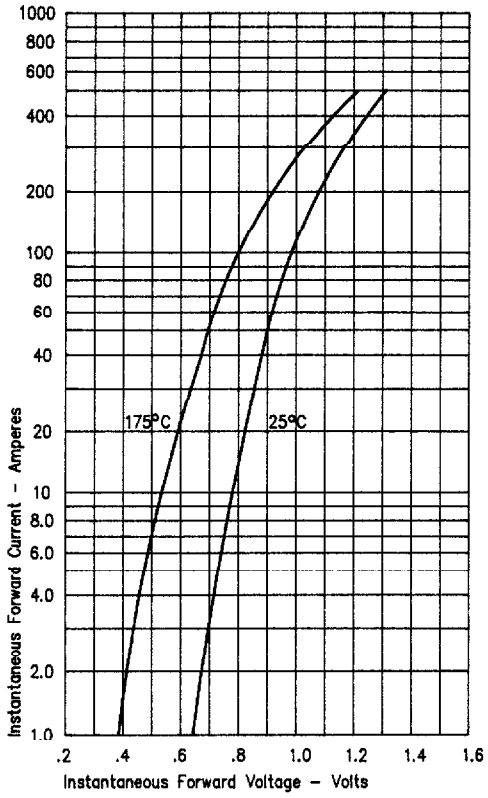


Figure 3  
Typical Junction Capacitance - Per Leg

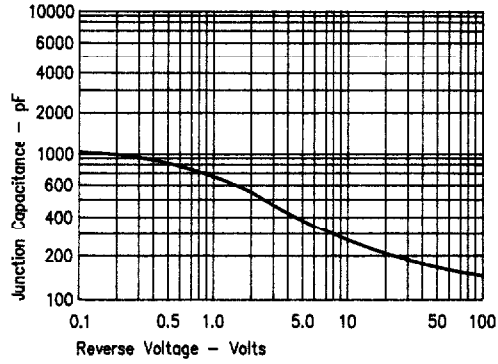


Figure 4  
Forward Current Derating - Per Leg

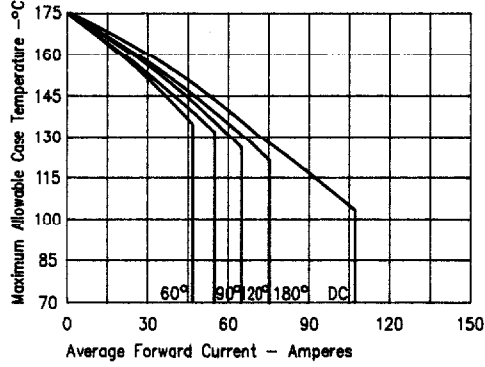


Figure 2  
Typical Reverse Characteristics - Per Leg

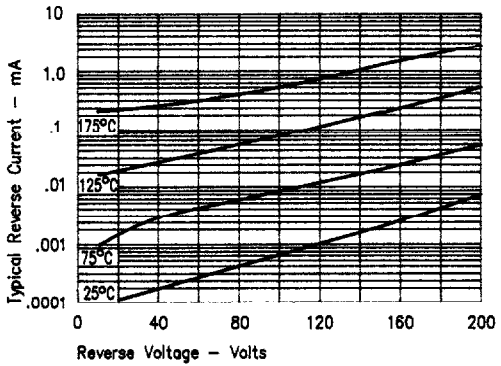
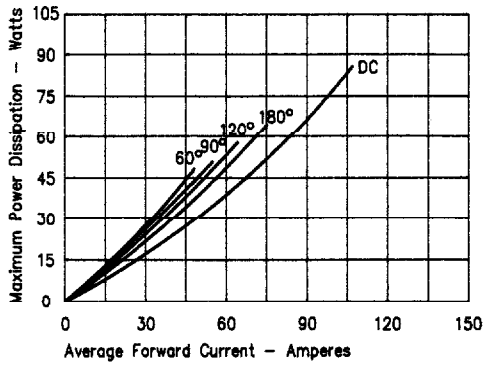


Figure 5  
Maximum Forward Power Dissipation - Per Leg



# UFT 151

Figure 1  
Typical Forward Characteristics - Per Leg

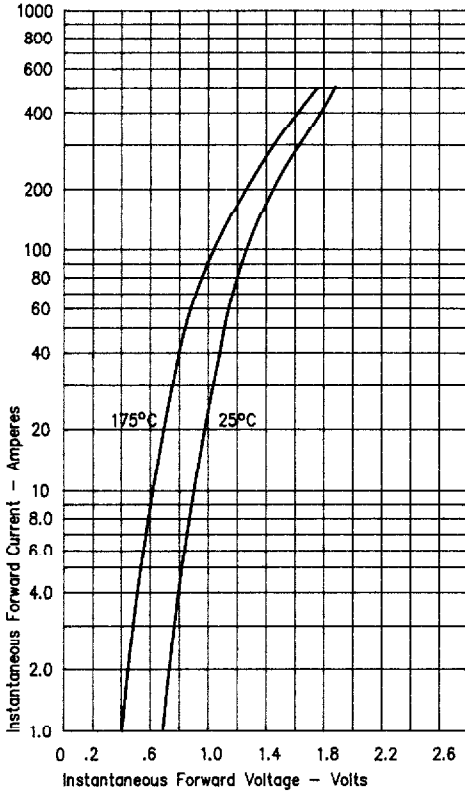


Figure 3  
Typical Junction Capacitance - Per Leg

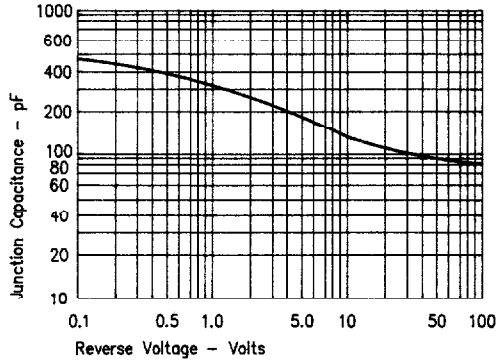


Figure 4  
Forward Current Derating - Per Leg

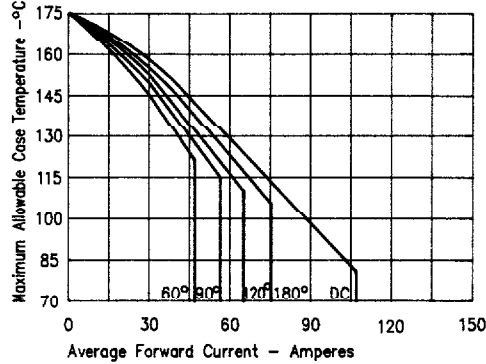


Figure 2  
Typical Reverse Characteristics - Per Leg

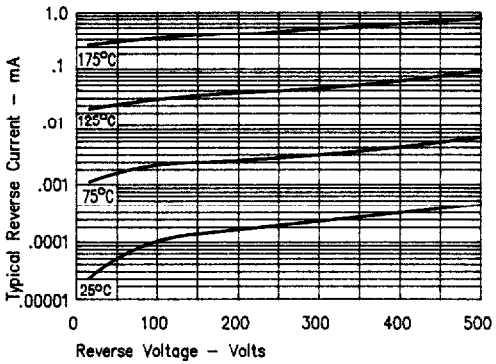
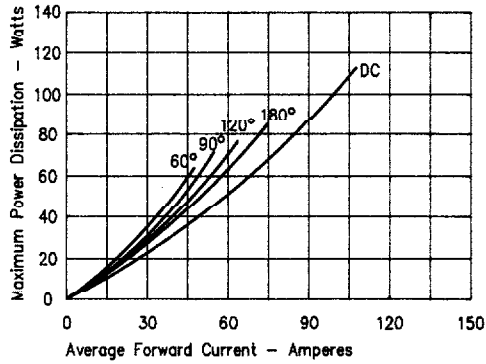


Figure 5  
Maximum Forward Power Dissipation - Per Leg



# UFT 152

Figure 1  
Typical Forward Characteristics - Per Leg

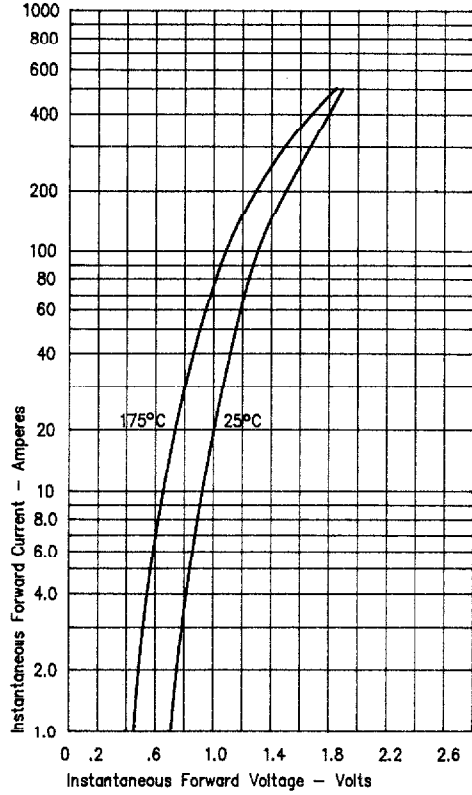


Figure 3  
Typical Junction Capacitance - Per Leg

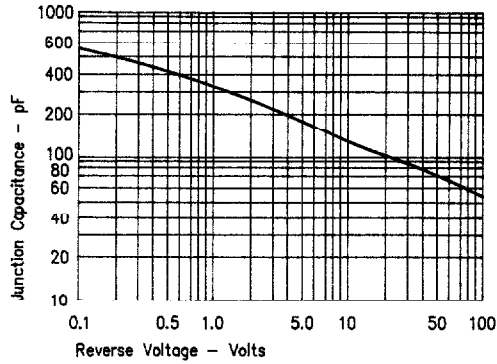


Figure 4  
Forward Current Derating - Per Leg

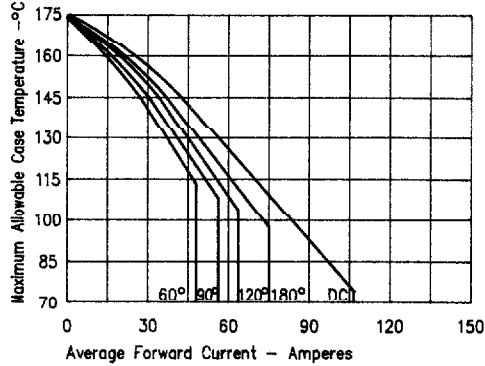


Figure 2  
Typical Reverse Characteristics - Per Leg

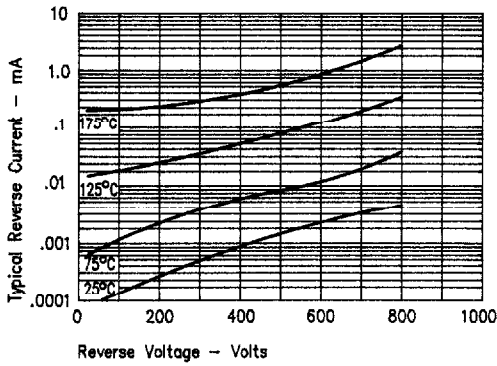


Figure 5  
Maximum Forward Power Dissipation - Per Leg

