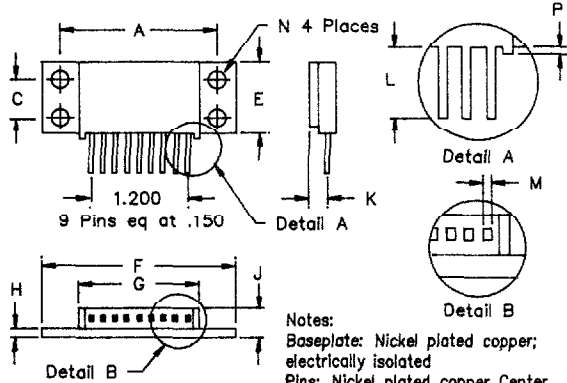


Ultrafast Recovery Modules UFT 100, 101 & 102



Notes:
Baseplate: Nickel plated copper;
electrically isolated
Pins: Nickel plated copper Center
terminal: Common Cathode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	1.995	2.005	50.87	50.93	
C	0.490	0.506	12.57	12.83	
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	6.60to	Lead CL
L	0.490	0.510	12.45	12.95	
M	0.040	.050	1.02	1.27	Square Dia
N	0.175	0.195	4.45	4.95	
P	0.032	0.052	0.81	1.32	



Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UFT10005*	50V	50V
UFT10010*	100V	100V
UFT10015*	150V	150V
UFT10020*UFT10120*	200V	200V
UFT10130*	300V	300V
UFT10140*	400V	400V
UFT10250*UFT10150*	500V	500V
UFT10260*	600V	600V
UFT10270*	700V	700V
UFT10280*	800V	800V

Add Suffix A for Common Anode, D for Doubler

- Ultra Fast Recovery
- 175°C Junction Temperature
- V_{RRM} 50 to 800 Volts
- Electrically isolated base
- 2 X 50 Amp current rating

Electrical Characteristics				
	UFT100	UFT101	UFT102	
Average forward current per pkg	I _{F(AV)} 100A	100A	100A	Square Wave
Average forward current per leg	I _{F(AV)} 50A	50A	50A	Square Wave
Case Temperature	T _C 135°C	124°C	118°C	R _{θJC} = 1.0°C/W
Maximum surge current per leg	I _{FSM} 1000A	800A	700A	8.3ms, half sine, T _J = 175°C
Max peak forward voltage per leg	V _{FM} .975V	1.25V	1.35V	I _{FM} = 70A; T _J = 25°C*
Max reverse recovery time per leg	t _{rr} 50ns	60ns	75ns	1/2A, 1A, 1/4A, T _J = 25°C
Typical reverse recovery time per leg	t _{rr} 30ns	45ns	50ns	1/2A, 1A, 1/4A, T _J = 25°C
Max reverse recovery time per leg	t _{rr} 60ns	70ns	95ns	70A, 130A/us, T _J = 25°C
Max peak reverse current per leg	I _{RM} 3.0mA			V _{RRM} , T _J = 125°C*
Max peak reverse current per leg	I _{RM} 25μA			V _{RRM} , T _J = 25°C
Typical Junction capacitance	C _J 300pF	150pF	150pF	V _R = 10V, T _J = 25°C

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

Thermal and Mechanical Characteristics		
Storage temp range	T _{STG}	-40°C to 175°C
Operating junction temp range	T _J	-40°C to 175°C
Max thermal resistance per leg	R _{θJC}	1.0°C/W Junction to case
per package	R _{θJC}	0.5°C/W Junction to case
Typical thermal resistance per leg	R _{θJC}	0.9°C/W Junction to case
Typical thermal resistance	R _{θCS}	0.1°C/W Case to sink
Mounting Torque		15 Inch pounds maximum
Weight		2.5 ounces (71 grams) typical

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

Microsemi Corp.
Colorado

UFT 100

Figure 1
Typical Forward Characteristics - Per Leg

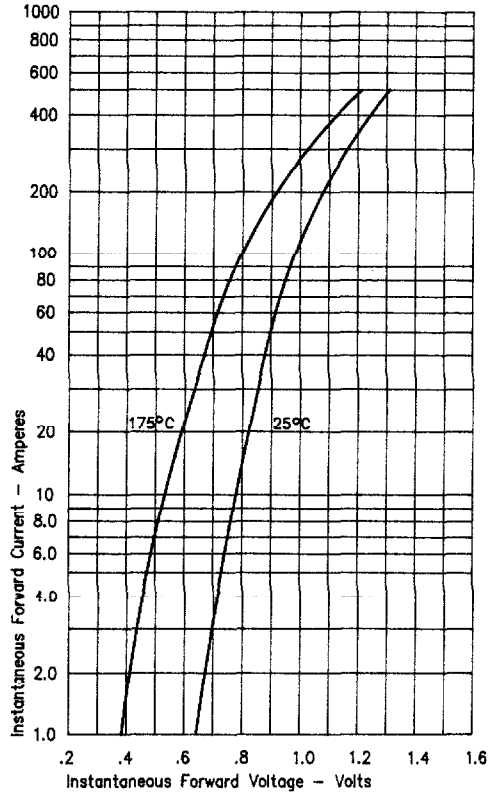


Figure 3
Typical Junction Capacitance - Per Leg

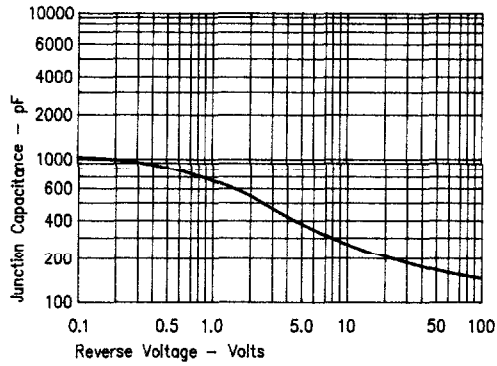


Figure 4
Forward Current Derating - Per Leg

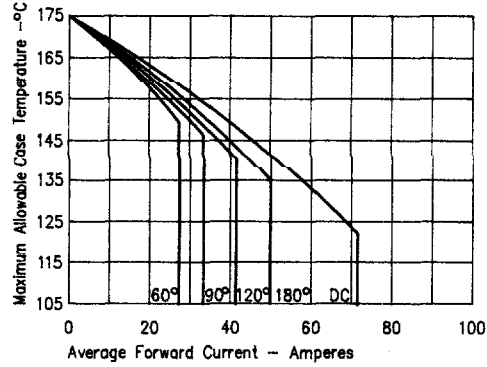


Figure 2
Typical Reverse Characteristics - Per Leg

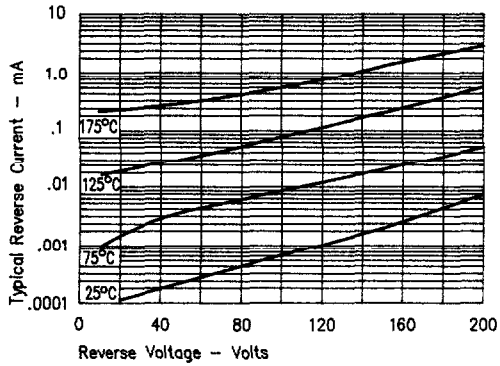
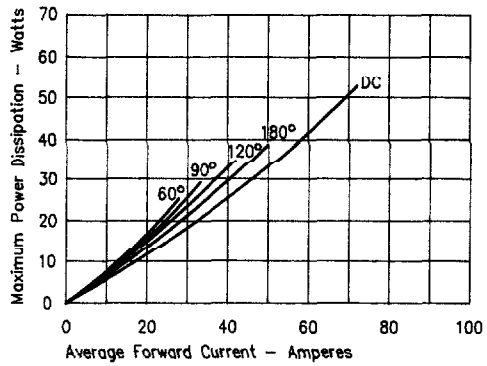


Figure 5
Maximum Forward Power Dissipation - Per Leg



UFT 101

Figure 1
Typical Forward Characteristics - Per Leg

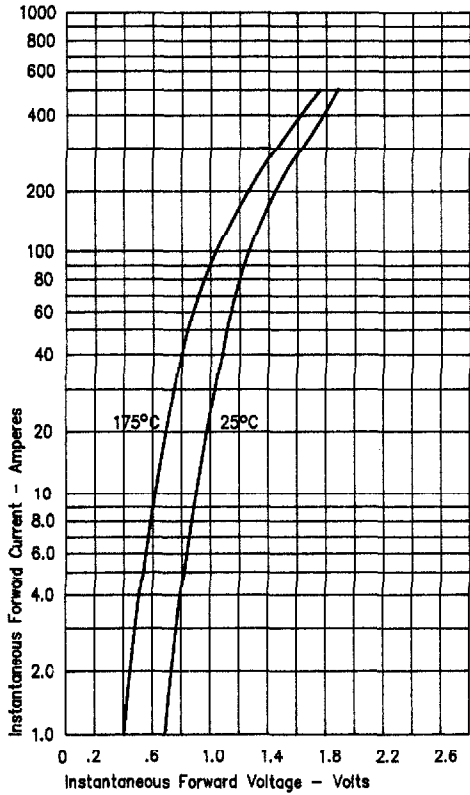
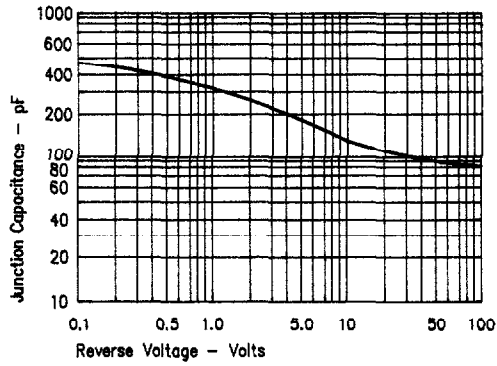


Figure 3
Typical Junction Capacitance - Per Leg



D

Figure 4
Forward Current Derating - Per Leg

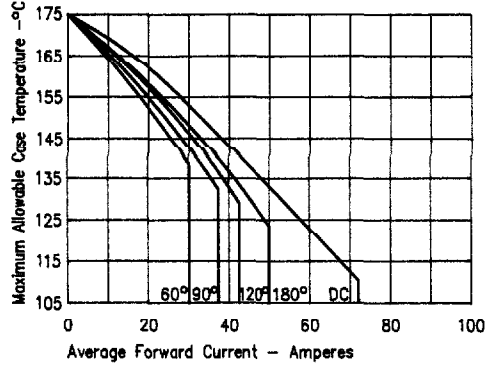


Figure 2
Typical Reverse Characteristics - Per Leg

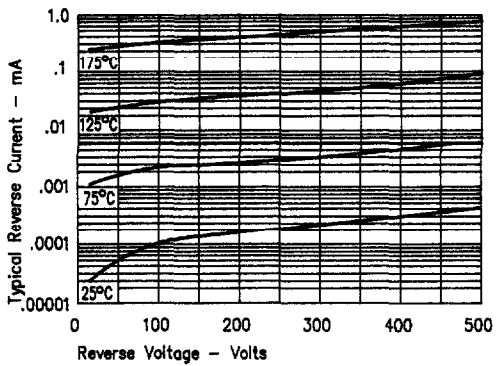
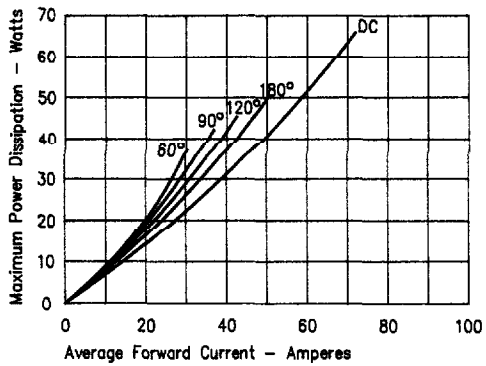


Figure 5
Maximum Forward Power Dissipation - Per Leg



UFT 102

Figure 1
Typical Forward Characteristics - Per Leg

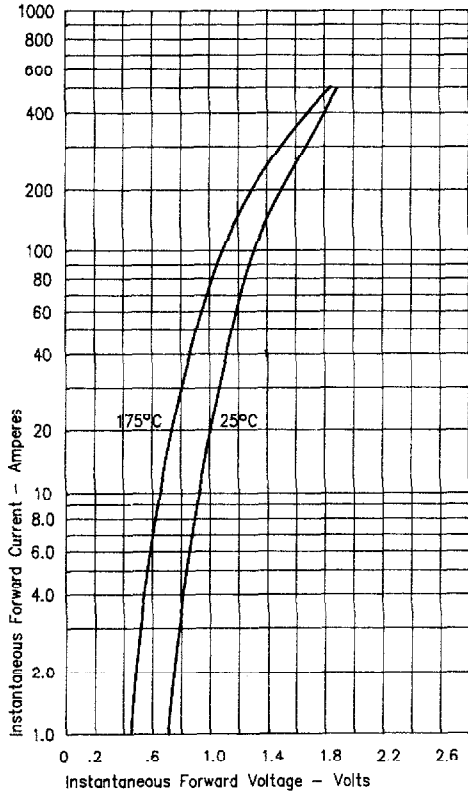


Figure 3
Typical Junction Capacitance - Per Leg

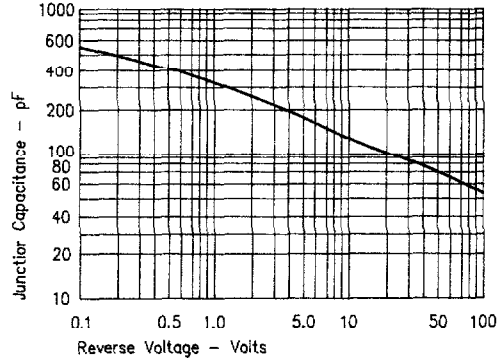


Figure 4
Forward Current Derating - Per Leg

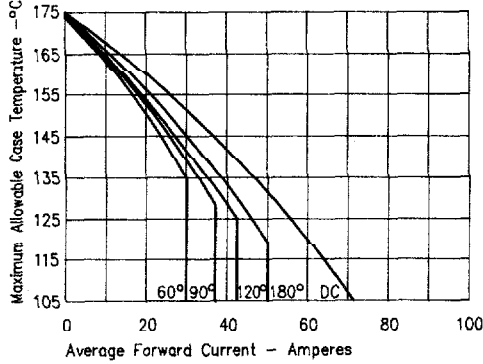


Figure 2
Typical Reverse Characteristics - Per Leg

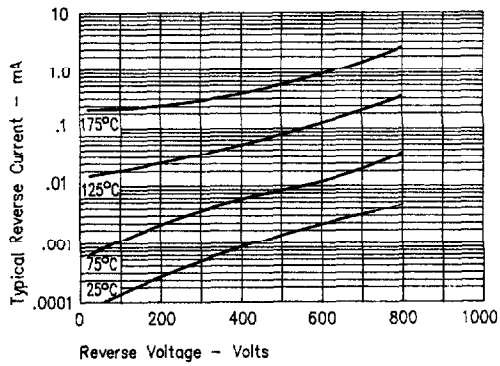


Figure 5
Maximum Forward Power Dissipation - Per Leg

