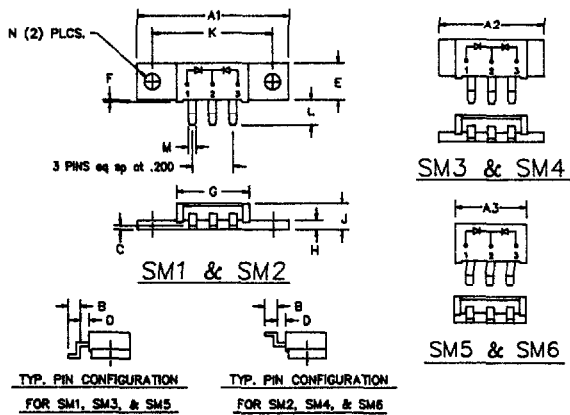


Ultrafast Recovery Modules

UFT70SM, 71SM & 72SM



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A1	1.490	1.510	37.85	38.35	
A2	1.020	1.040	26.12	26.42	
A3	.695	.715	17.65	18.16	
B	.110	.120	2.79	3.04	
C	.027	.037	0.69	0.94	
D	.100	.110	2.54	2.79	
E	.350	.370	8.89	9.40	
F	.015	.025	0.38	0.64	
G	.695	.715	17.65	18.16	
H	.000	.090	2.24	2.49	
J	.240	.260	6.10	6.60	
K	1.180	1.195	29.97	30.35	
L	.230	.250	5.84	6.35	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	Dia.



Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UFT7005SM ①②	50V	50V
UFT7010SM --	100V	100V
UFT7015SM --	150V	150V
UFT7020SM -- UFT7120SM ①②	200V	200V
UFT7130SM --	300V	300V
UFT7140SM --	400V	400V
UFT7250SM ①② UFT7150SM --	500V	500V
UFT7260SM --	600V	600V
UFT7270SM --	700V	700V
UFT7280SM --	800V	800V

Note: ① Specify (1-6) to identify package desired
 ② Specify C-Common Cathode, A-Common Anode, D-Doubler

- Ultra Fast Recovery
- 175°C Junction Temperature
- VRRM 50 to 800 Volts
- Unique surface mount package
- 2 X 35 Amp current rating

Electrical Characteristics				
	UFT70SM	UFT71SM	UFT72SM	
Average forward current per pkg	IF(AV) 70A	70A	70A	Square Wave
Average forward current per leg	IF(AV) 35A	35A	35A	Square Wave
Case Temperature	TC 148°C	142°C	138°C	RθJC = 1.0°C/W
Maximum surge current per leg	IFSM 700A	600A	500A	8.3ms, half sine, T _J = 175°C
Max peak forward voltage per leg	VFM .95V	1.20V	1.35V	IFM = 35A; 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} 35ns	50ns	65ns	1/2A, 1A, 1/4A, T _J = 25°C
Max peak reverse current per leg	IRM 3.0mA			VRRM, T _J = 125°C
Max peak reverse current per leg	IRM 25μA			VRRM, T _J = 25°C
Typical Junction capacitance	C _J 300pF	120pF	115pF	VR = 10V, T _J = 25°C

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

Thermal and Mechanical Characteristics		
Storage temp range	TSTG	-40°C to 175°C
Operating junction temp range	T _J	-40°C to 175°C
Max thermal resistance per leg	RθJC	1.0°C/W Junction to case
per package	RθJC	0.5°C/W Junction to case
Typical thermal resistance per leg	RθJC	0.85°C/W Junction to case
Typical thermal resistance	RθCS	0.3°C/W Case to sink
Mounting Base Torque		10 inch pounds maximum
Weight	SM1-2	0.3 ounce (8.4 grams) typical
	SM3-4	0.24 ounce (6.7 grams) typical
	SM5-6	0.18 ounce (5.2 grams) typical



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

UFT70SM1 — SM6

Figure 1
Typical Forward Characteristics — Per Leg

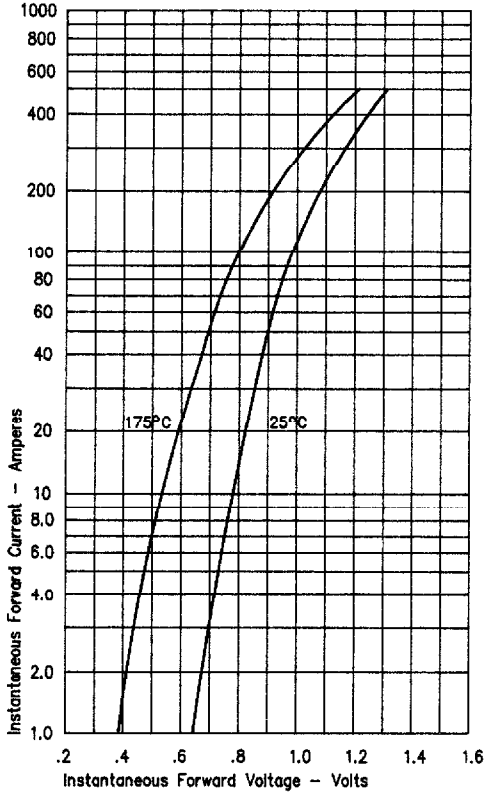


Figure 3
Typical Junction Capacitance — Per Leg

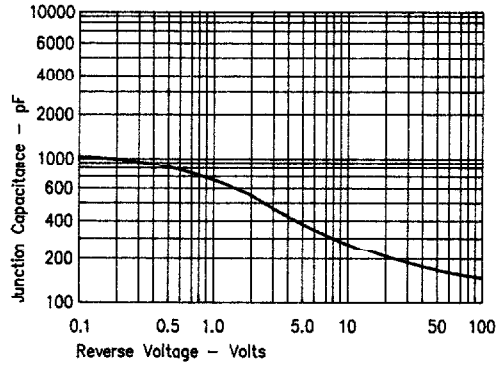


Figure 4
Forward Current Derating — Per Leg

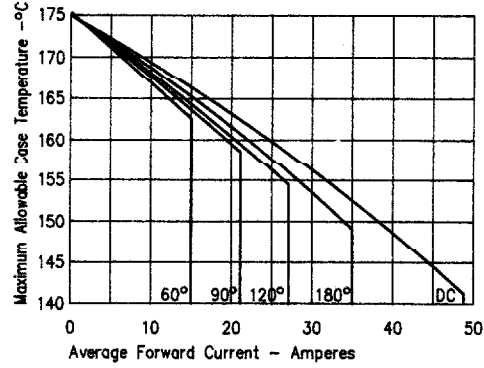


Figure 2
Typical Reverse Characteristics — Per Leg

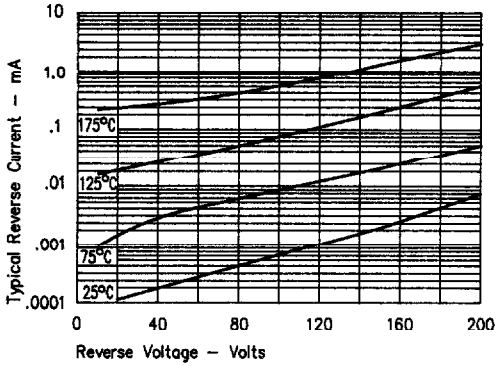
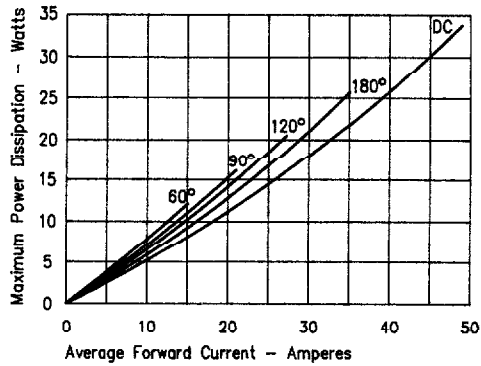


Figure 5
Maximum Forward Power Dissipation — Per Leg



UFT71SM1 — SM6

Figure 1
Typical Forward Characteristics — Per Leg

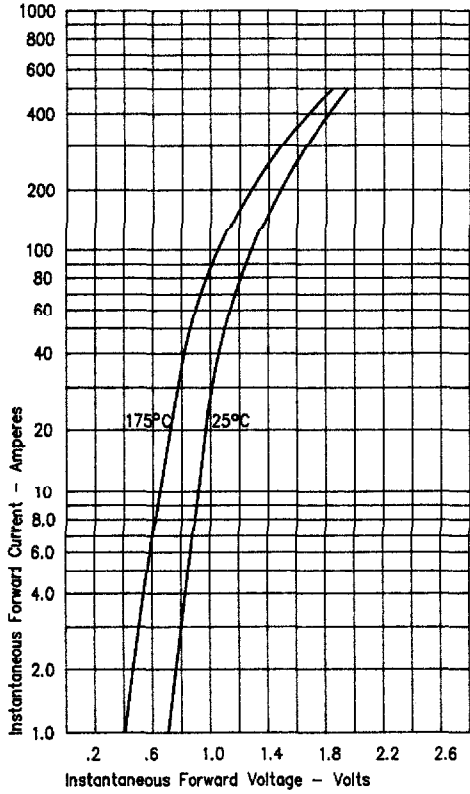


Figure 3
Typical Junction Capacitance — Per Leg

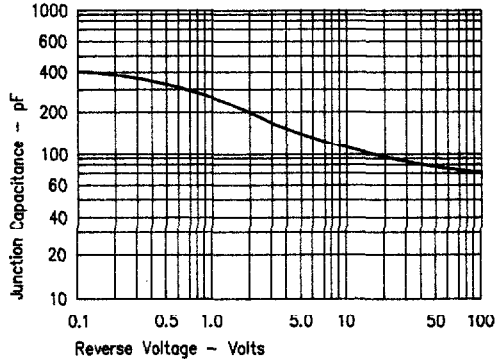


Figure 4
Forward Current Derating — Per Leg

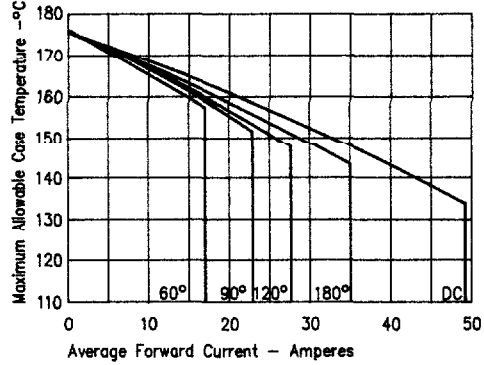


Figure 2
Typical Reverse Characteristics — Per Leg

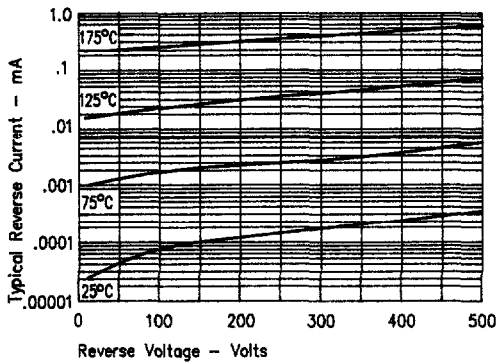
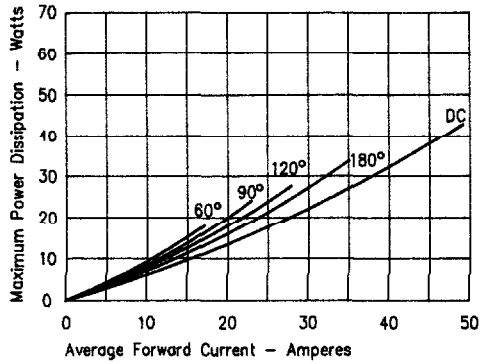


Figure 5
Maximum Forward Power Dissipation — Per Leg



UFT72SM1 - SM6

Figure 1
Typical Forward Characteristics - Per Leg

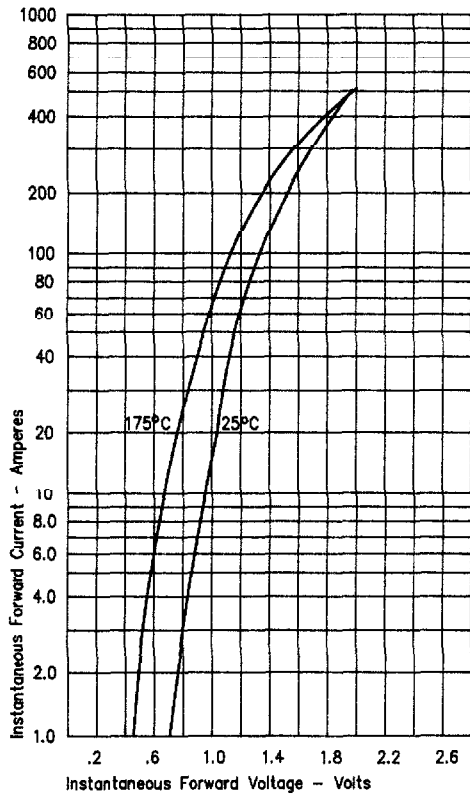


Figure 3
Typical Junction Capacitance - Per Leg

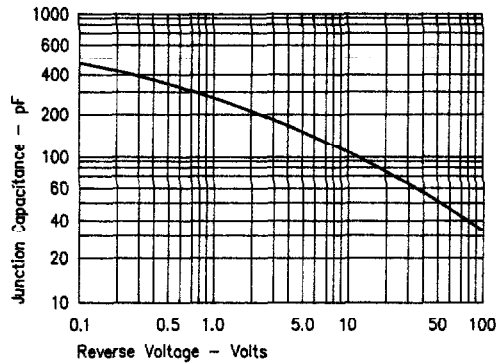


Figure 4
Forward Current Derating - Per Leg

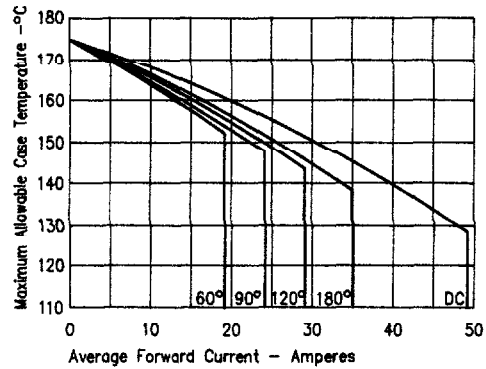


Figure 2
Typical Reverse Characteristics - Per Leg

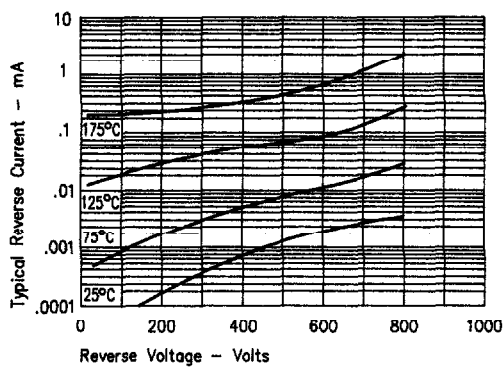


Figure 5
Maximum Forward Power Dissipation - Per Leg

