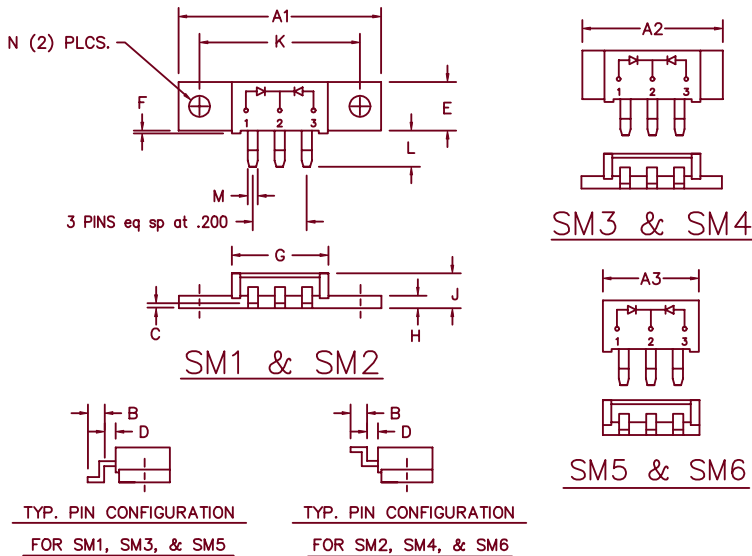


Ultrafast Recovery Modules

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	.088	.098	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
UFT7010SM ①②	100V	100V
UFT7015SM --	150V	150V
UFT7020SM --	200V	200V
UFT7120SM ①②	300V	300V
UFT7130SM --	400V	400V
UFT7140SM --	500V	500V
UFT7250SM ①②	600V	600V
UFT7260SM --	700V	700V
UFT7270SM --	800V	800V
UFT7280SM --		

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
- V_{RRM} 100 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	V _{FM} .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	
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	120pF	115pF	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}	-55°C to 175°C
Operating junction temp range	T _J	-55°C to 175°C
Max thermal resistance per leg	RθJC	1.0°C/W Junction to case
Max thermal resistance per pkg	RθJC	0.5°C/W Junction to case
Typical thermal resistance (greased)	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

UFT70SM1 – SM6

Figure 1
Typical Forward Characteristics – Per Leg

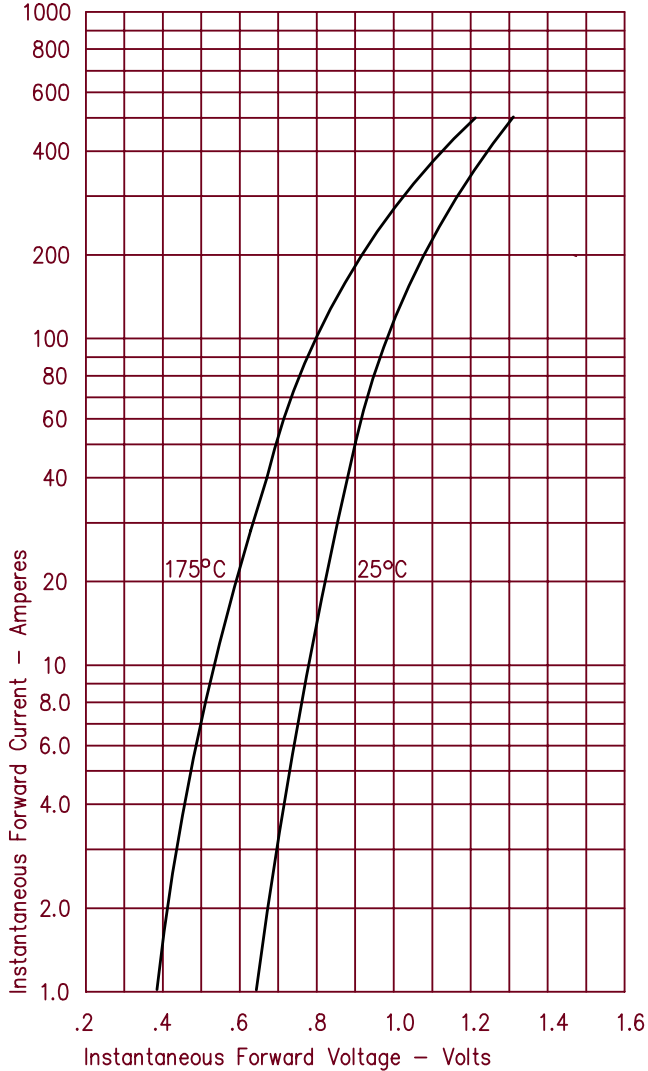


Figure 3
Typical Junction Capacitance – Per Leg

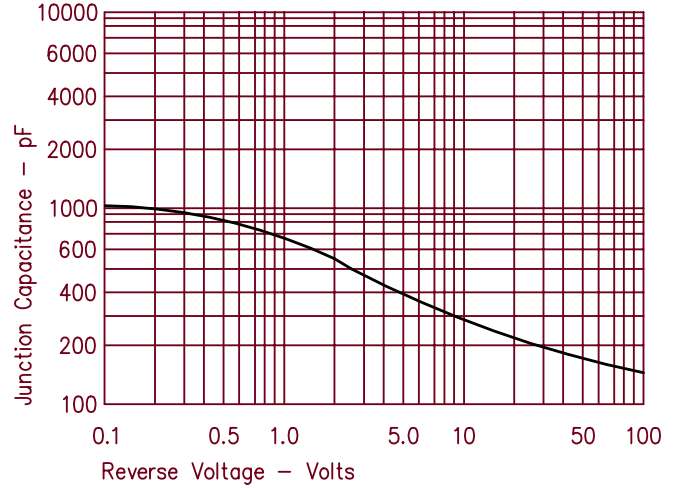


Figure 4
Forward Current Derating – Per Leg

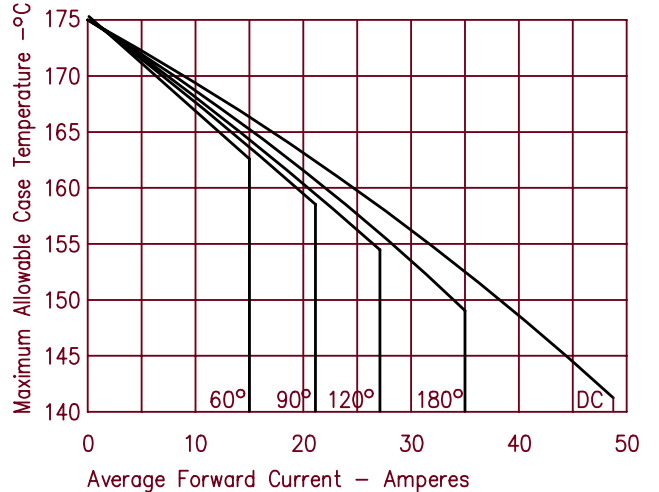


Figure 2
Typical Reverse Characteristics – Per Leg

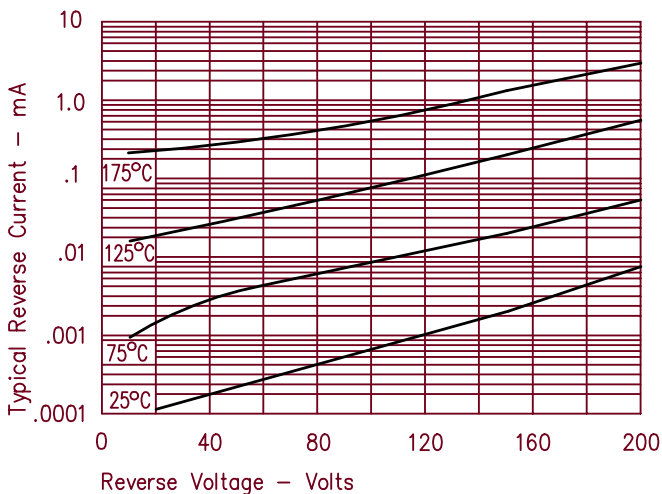
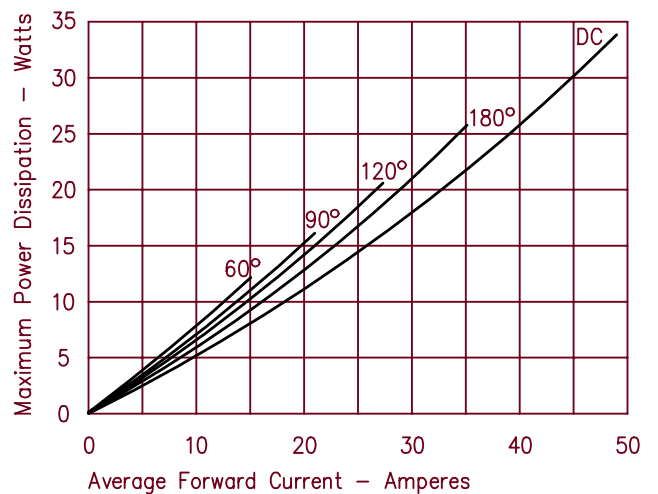


Figure 5
Maximum Forward Power Dissipation – Per Leg



UFT71SM1 — SM6

Figure 1
Typical Forward Characteristics — Per Leg



Figure 3
Typical Junction Capacitance — Per Leg

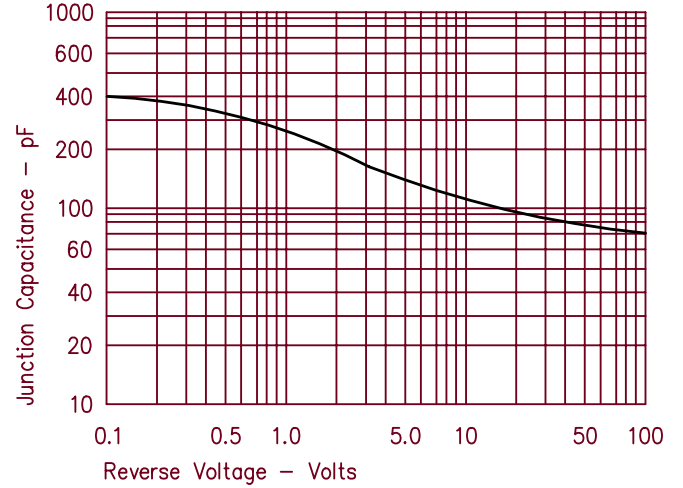


Figure 4
Forward Current Derating — Per Leg

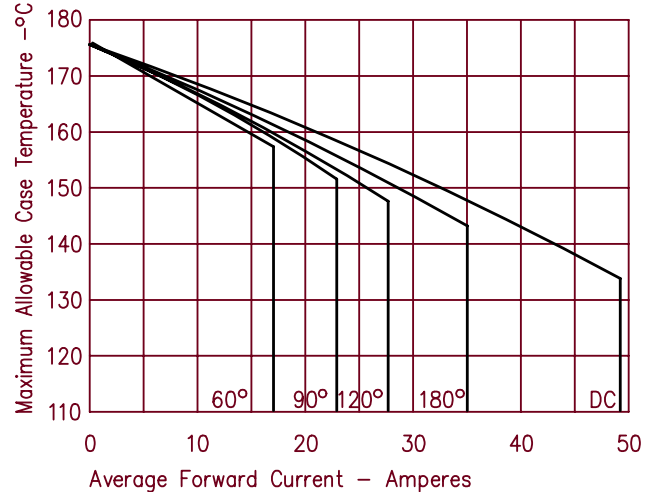


Figure 2
Typical Reverse Characteristics — Per Leg

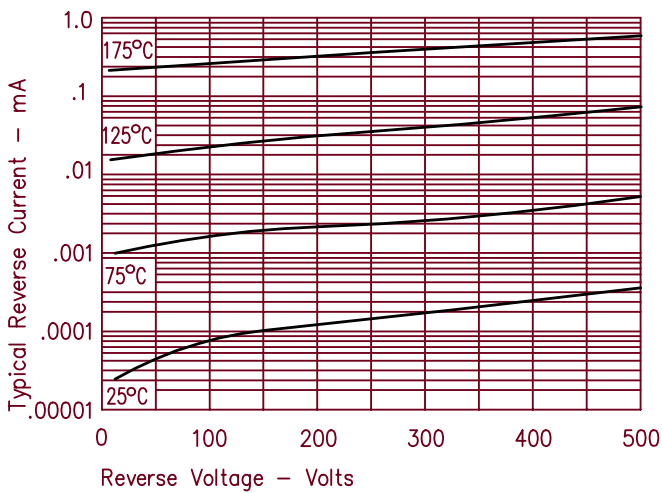
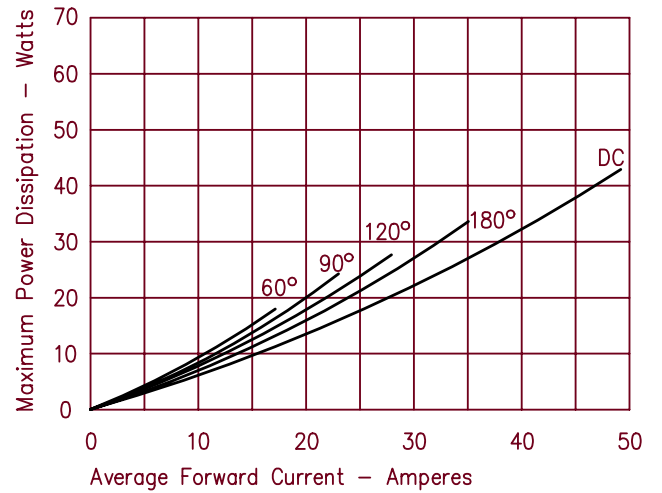


Figure 5
Maximum Forward Power Dissipation — Per Leg



UFT72SM1 – SM6

Figure 1
Typical Forward Characteristics – Per Leg



Figure 3
Typical Junction Capacitance – Per Leg

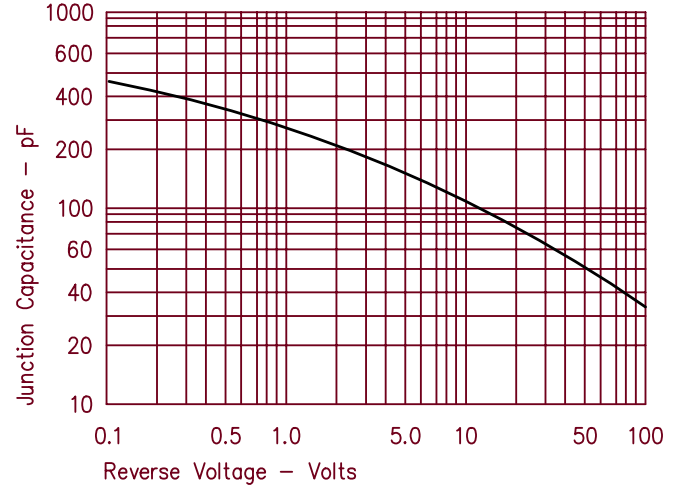


Figure 4
Forward Current Derating – Per Leg

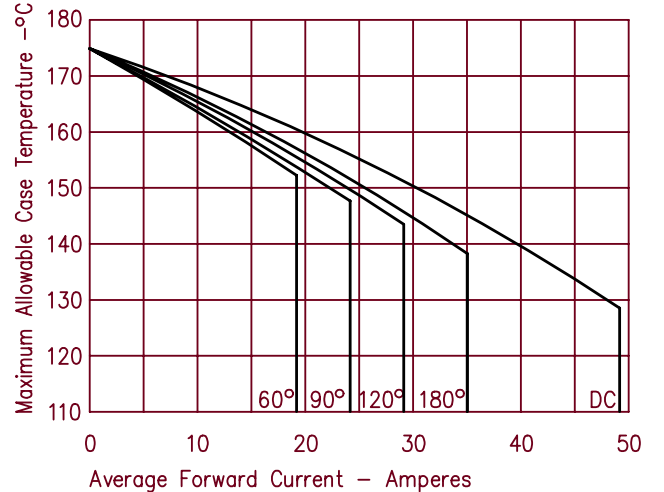


Figure 2
Typical Reverse Characteristics – Per Leg

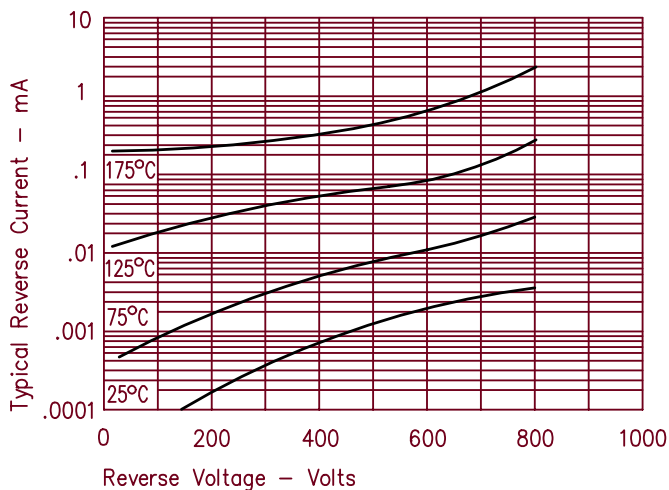


Figure 5
Maximum Forward Power Dissipation – Per Leg

