

## Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

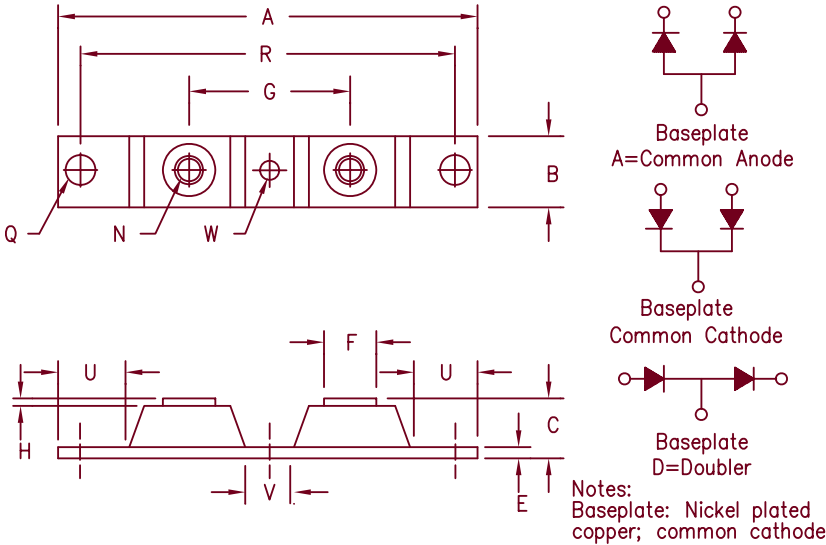
[Microsemi Power Products](#)

[UFT12520](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

# Ultrafast Recovery Modules UFT125, 126 & 127



Dim.	Inches		Millimeters		Notes
	Min.	Max.	Min.	Max.	
A	---	3.630	---	92.20	
B	0.700	0.800	17.78	20.32	
C	---	0.630	---	16.00	
E	0.120	0.130	3.05	3.30	
F	0.490	0.510	12.45	12.95	
G	1.375	BSC	34.92	BSC	
H	0.010	---	0.25	---	
N	---	---	---	---	1/4-20
Q	0.275	0.290	6.99	7.37	Dia.
R	3.150	BSC	80.01	BSC	
U	0.600	---	15.24	---	
V	0.312	0.340	7.92	8.64	
W	0.180	0.195	4.57	4.95	Dia.

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UFT12505*	50V	50V
UFT12510*	100V	100V
UFT12515*	150V	150V
UFT12520*UFT12620*	200V	200V
UFT12630*	300V	300V
UFT12640*	400V	400V
UFT12650*	500V	500V
UFT12760*	600V	600V
UFT12770*	700V	700V
UFT12780*	800V	800V

Add Suffix A for Common Anode, D for Doubler

- Ultra Fast Recovery
- 175°C Junction Temperature
- V<sub>RRM</sub> 50 to 800 Volts
- 120 Amps Current Rating
- 2 X 60 Amp current rating

Electrical Characteristics					
		UFT125	UFT126	UFT127	
Average forward current per pkg	I <sub>F(AV)</sub>	120A	120A	120A	Square Wave
Average forward current per leg	I <sub>F(AV)</sub>	60A	60A	60A	Square Wave
Case Temperature	T <sub>C</sub>	130°C	115°C	114°C	R <sub>θJC</sub> = 0.85°C/W
Maximum surge current per leg	I <sub>FSM</sub>	800A	700A	600A	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> = 60A, T <sub>J</sub> = 25°C*
Max reverse recovery time per leg	t <sub>rr</sub>	40ns	60ns	80ns	1/2A, 1A, 1/4A, T <sub>J</sub> = 25°C
Max peak reverse current per leg	I <sub>RM</sub>	---	2.0ma	---	V <sub>RRM</sub> , T <sub>J</sub> = 125°C*
Max peak reverse current per leg	I <sub>RM</sub>	---	30µa	---	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical Junction capacitance	C <sub>J</sub>	270pF	200pF	160pF	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>	-55°C to 175°C
Operating junction temp range	T <sub>J</sub>	-55°C to 175°C
Max thermal resistance per leg	R <sub>θJC</sub>	0.85°C/W Junction to case
Max thermal resistance per pkg	R <sub>θJC</sub>	0.425°C/W Junction to case
Typical thermal resistance	R <sub>θCS</sub>	0.08°C/W Case to sink
Terminal Torque		35-50 inch pounds
Mounting Base Torque - outside holes		30-40 inch pounds
Mounting Base Torque - (center hole)		8-10 inch pounds
Weight		2.8 ounces (75 grams) typical

# UFT125

Figure 1  
Typical Forward Characteristics – Per Leg

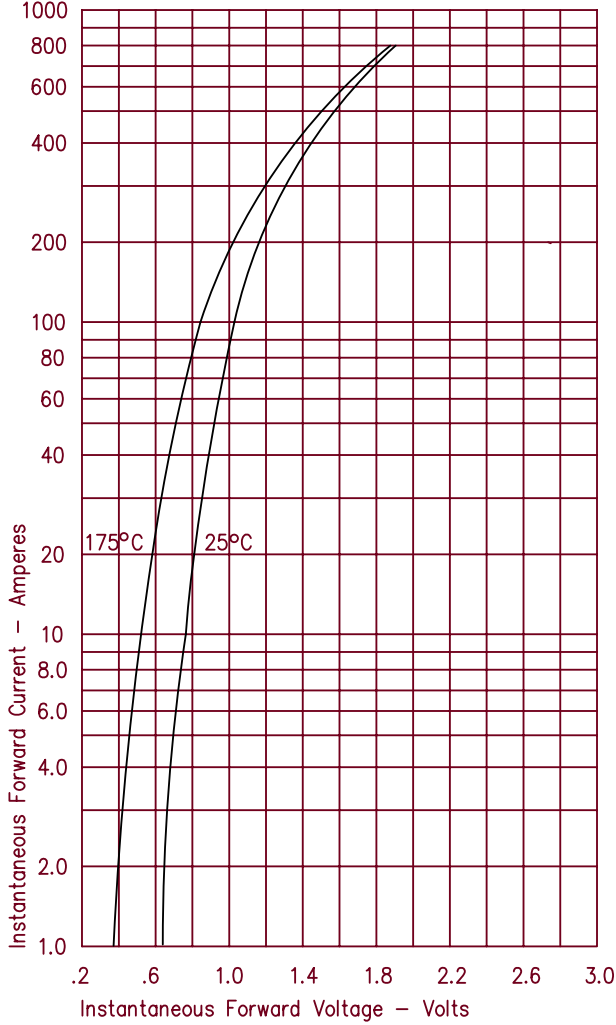


Figure 3  
Typical Junction Capacitance – Per Leg

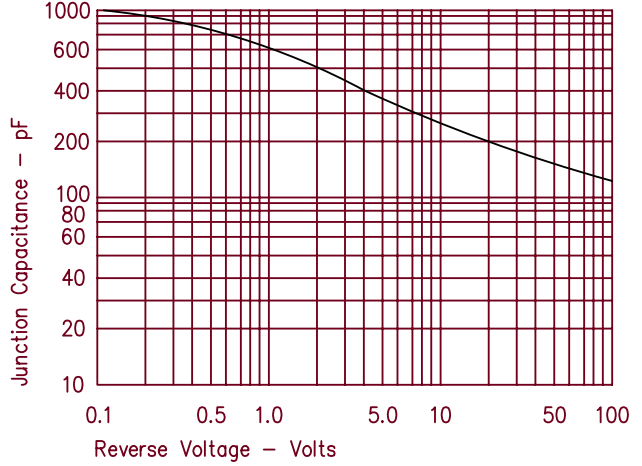


Figure 4  
Forward Current Derating – Per Leg

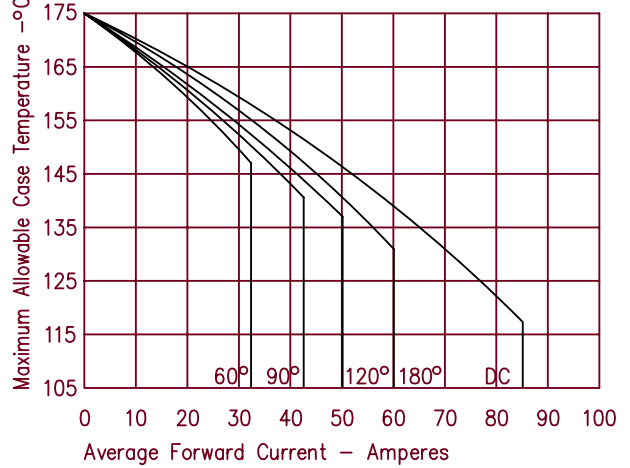


Figure 2  
Typical Reverse Characteristics – Per Leg

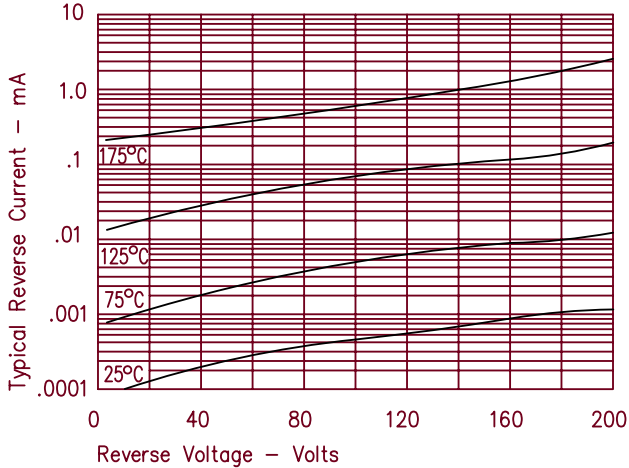
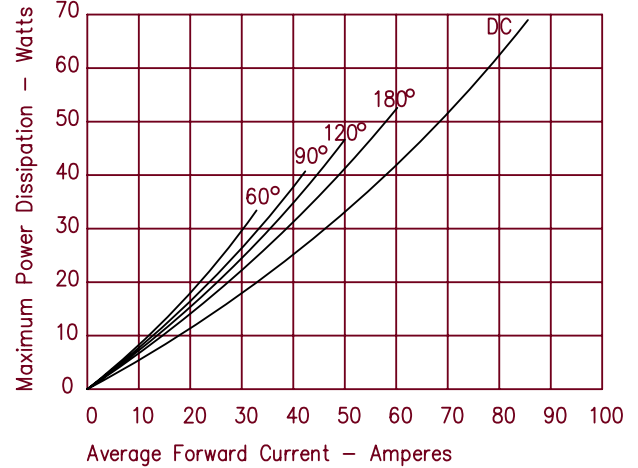


Figure 5  
Maximum Forward Power Dissipation – Per Leg



# UFT126

Figure 1  
Typical Forward Characteristics – Per Leg

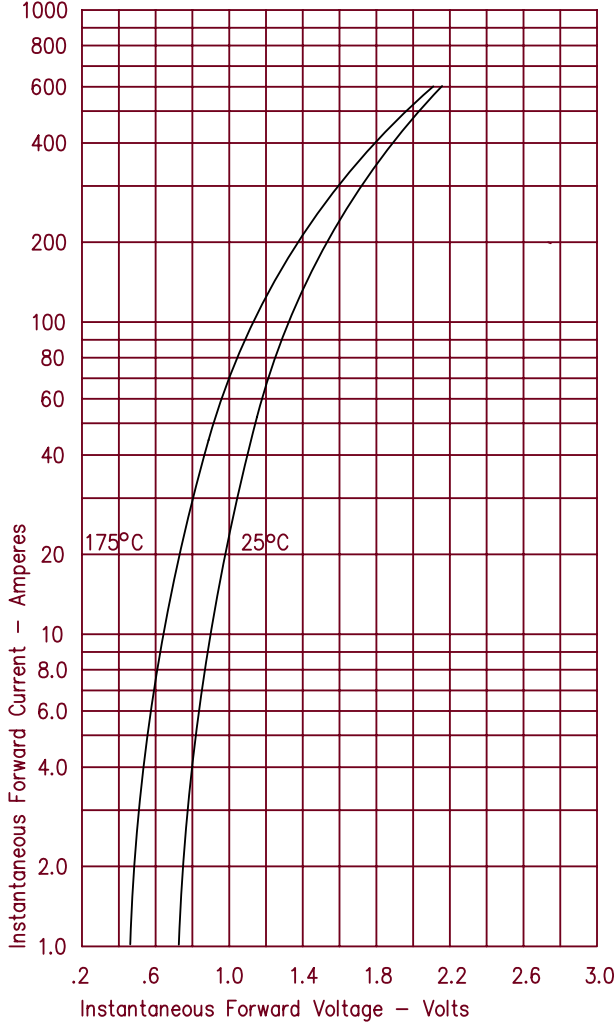


Figure 3  
Typical Junction Capacitance – Per Leg

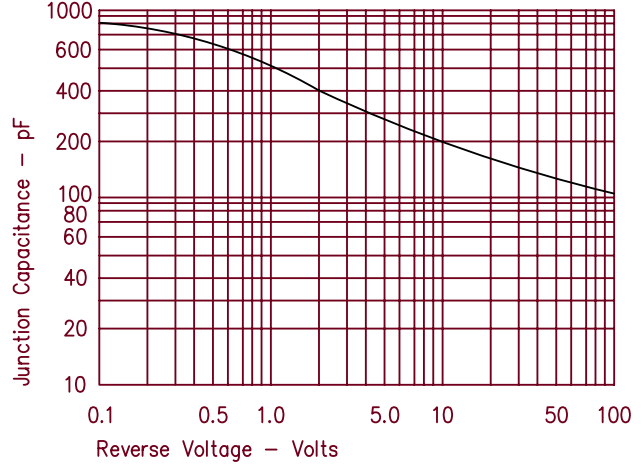


Figure 4  
Forward Current Derating – Per Leg

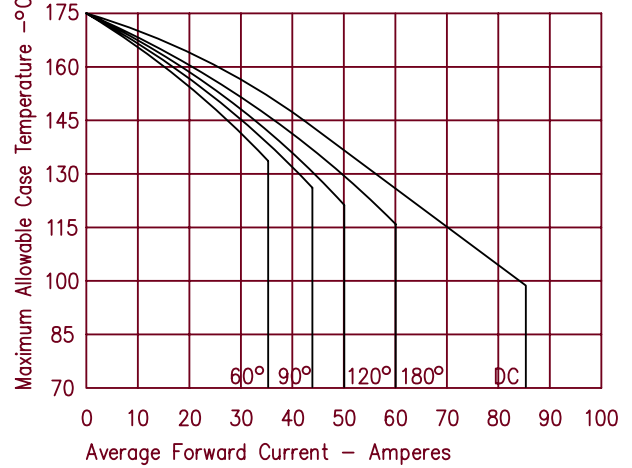


Figure 2  
Typical Reverse Characteristics – Per Leg

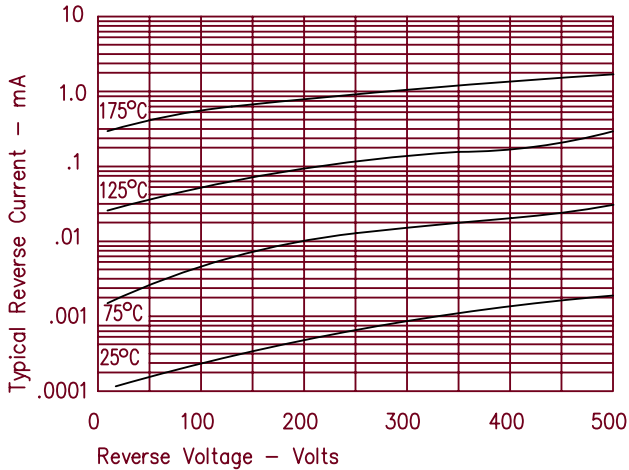
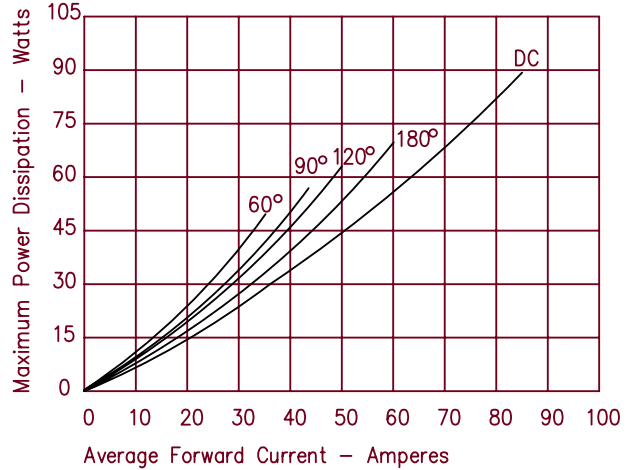


Figure 5  
Maximum Forward Power Dissipation – Per Leg



# UFT127

Figure 1  
Typical Forward Characteristics – Per Leg

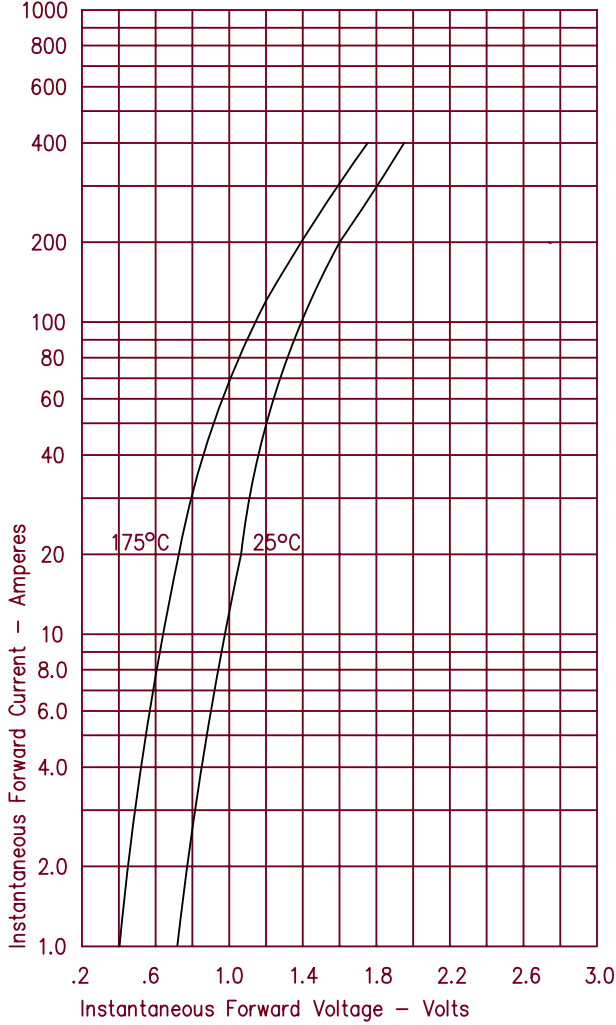


Figure 3  
Typical Junction Capacitance – Per Leg

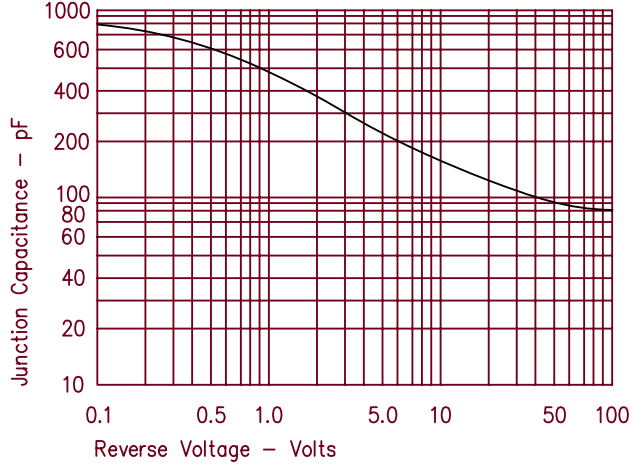


Figure 4  
Forward Current Derating – Per Leg

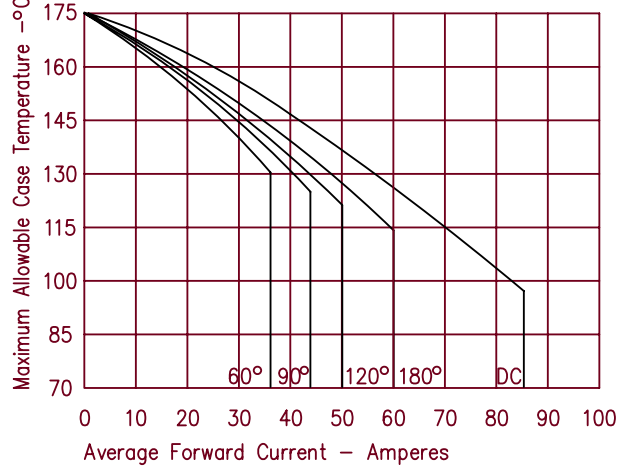


Figure 2  
Typical Reverse Characteristics – Per Leg

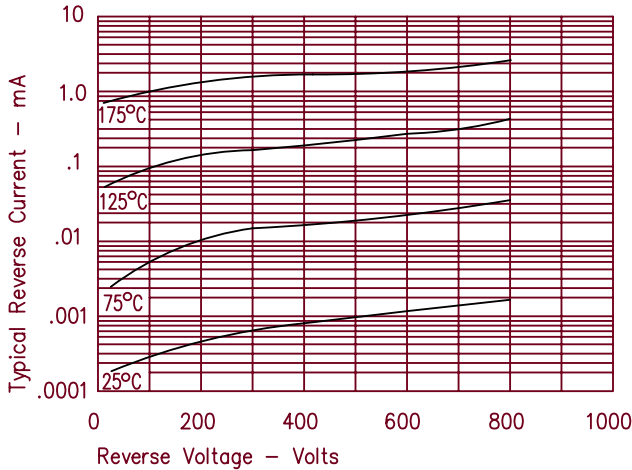


Figure 5  
Maximum Forward Power Dissipation – Per Leg

