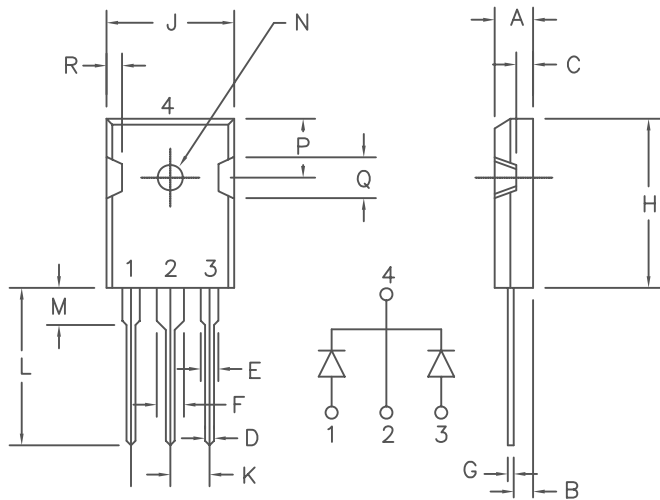


30 Amp Ultra Fast Recovery Rectifiers UF3010 — UF3020



Similar to TO-247AD

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.185	.209	4.70	5.31	
B	.087	.102	2.21	2.59	
C	.059	.098	1.50	2.49	
D	.040	.055	1.02	1.40	
E	.079	.094	2.01	2.39	
F	.118	.133	3.00	3.38	
G	.016	.031	.410	0.78	
H	.819	.883	20.80	22.4	
J	.627	.650	15.93	16.5	
K	.215	—	5.46	—	Typ.
L	.790	.810	20.07	20.6	
M	.157	.180	3.99	4.57	
N	.139	.144	3.53	3.66	Dia.
P	.255	.300	6.48	7.62	
Q	.170	.210	4.32	5.33	
R	.080	.110	2.03	2.79	

Microsemi Catalog Number	Industry Part Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
UF3010		100V	100V
UF3015		150V	150V
UF3020	MUR3020WT	200V	200V

- Ultra Fast Recovery Rectifier
- 2 x 15 Amp current rating
- trr 30nS maximum
- Non isolated base
- 175°C junction temperature
- V_{RRM} 100 to 200 volts

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 30 Amps	$T_C = 158^\circ\text{C}$, square wave, $R_{\theta JC} = .75^\circ\text{C/W}$
Average forward current per leg	$I_{F(AV)}$ 15 Amp	$T_C = 158^\circ\text{C}$, square wave, $R_{\theta JC} = 1.5^\circ\text{C/W}$
Maximum surge current per leg	I_{FSM} 200 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Max. peak forward voltage per leg	V_{FM} .98 Volts	$I_{FM} = 15\text{A}$, $T_J = 25^\circ\text{C}^*$
Max. peak reverse current per leg	I_{RM} 10 μA	V_{RRM} , $T_J = 25^\circ\text{C}$
Typical junction capacitance	C_J 180 pF	$V_R = 10\text{V}$, $T_J = 25^\circ\text{C}$
Max. reverse recovery time	trr 30nS	1/2A, 1A, 1/4A, $T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec . Duty Cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	TSTG	-55°C to +175°C
Operating junction temp range	T_J	-55°C to +175°C
Max thermal resistance per leg	$R_{\theta JC}$	1.5°C/W Junction to case
Max thermal resistance per pkg	$R_{\theta JC}$.75°C/W Junction to case
Mounting torque		8-10 inch pounds (#6 screw)
Typical weight		.22 ounces (6.36 grams) typical



8700 East Thomas Road, P.O. Box 1390
Scottsdale, AZ 85252
PH: (480) 941-6300
FAX: (480) 947-1503
www.microsemi.com

05-07-07 Rev.4

UF3010 — UF3020

Figure 1
Typical Forward Characteristics — Per Leg

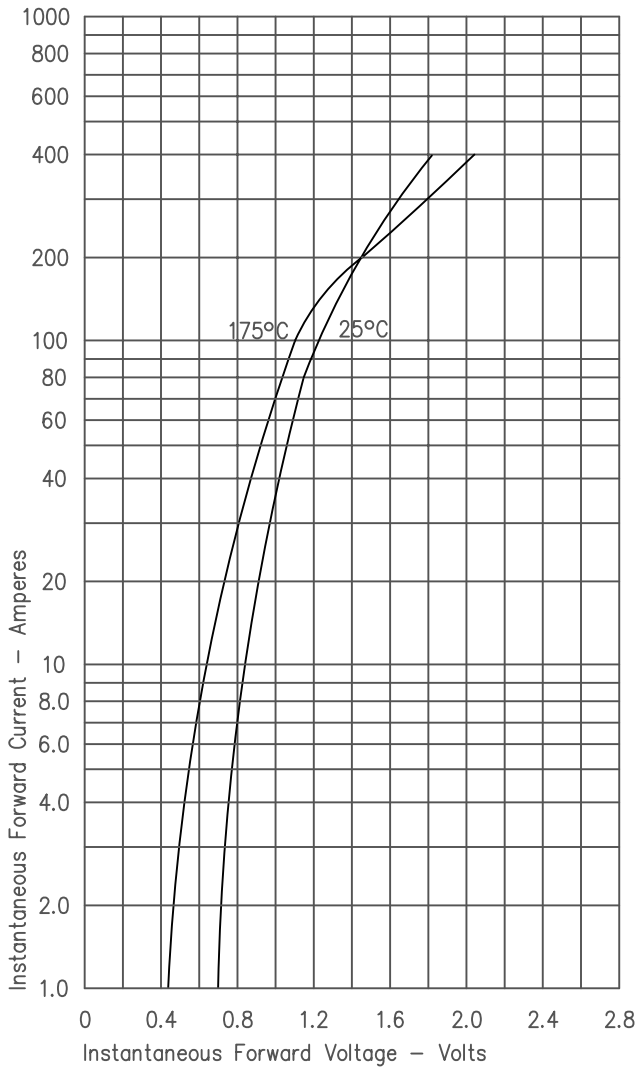


Figure 3
Typical Junction Capacitance — Per Leg

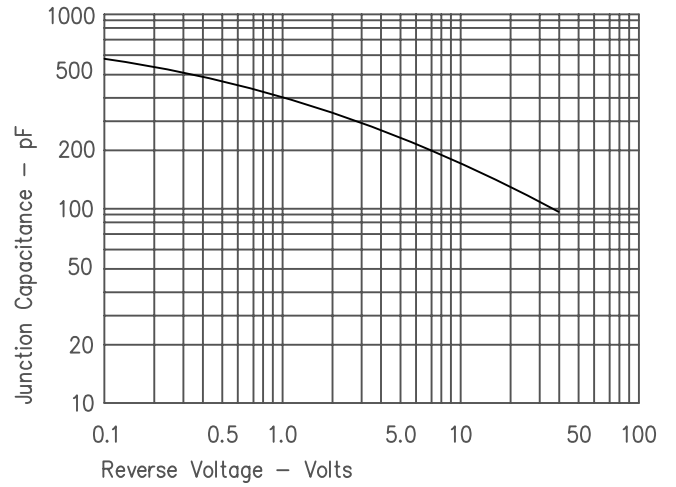


Figure 4
Forward Current Derating — Per Leg

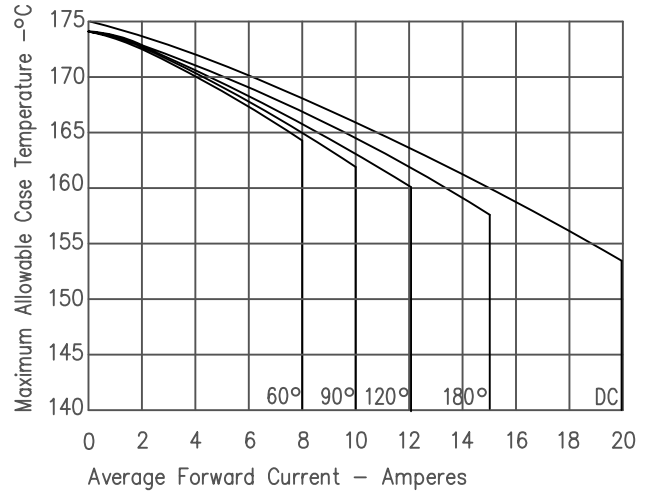


Figure 2
Typical Reverse Characteristics — Per Leg

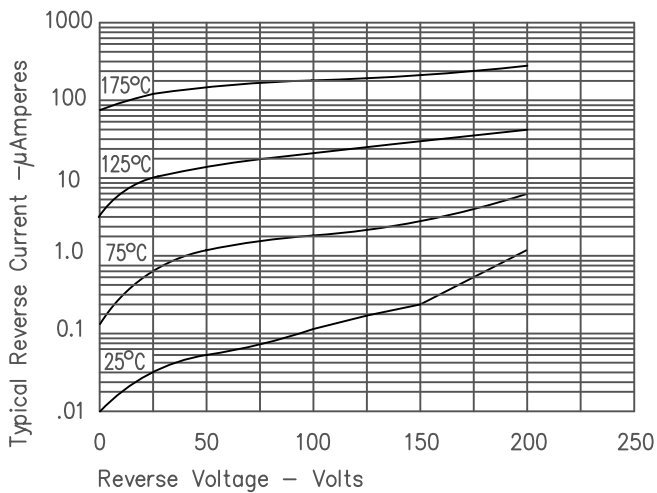


Figure 5
Maximum Forward Power Dissipation — Per Leg

