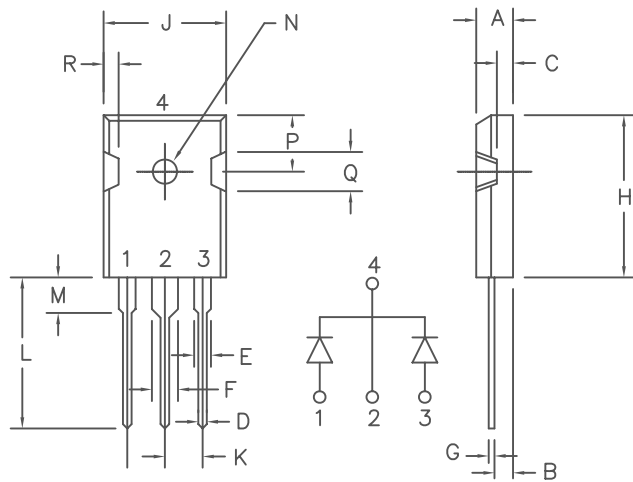


30 Amp Ultra Fast Rectifiers

UES3005C — UES3015C



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 PartNumber	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
UES3005C		50V	50V
UES3010C		100V	100V
UES3015C		150V	150V

- Ultra Fast Recovery Rectifiers
- trr 35nS maximum
- 150°C junction temperature
- VRRM 50 to 150 volts

Electrical Characteristics		
Average forward current per package	I _{F(AV)} 15 Amps	T _C = 130°C
Average forward current per leg	I _{F(AV)} 30 Amps	T _C = 130°C
Maximum surge current per leg	I _{FSM} 250 Amps	8.3ms, half sine, T _J = 150°C
Max peak forward voltage per leg	V _{FM} 0.98 Volts	I _{FM} = 15A: T _J = 25°C*
Typical peak forward voltage per leg	V _{FM} 0.70 Volts	I _{FM} = 15A: T _J = 150°C*
Max peak reverse current per leg	I _{RM} 10 μA	V _{RRM} , T _J = 25°C
Typical peak reverse current per leg	I _{RM} 100 μA	V _{RRM} , T _J = 150°C
Max recovery time	t _{RR} 35 ns	1/2A, 1A, 1/4A
Typical junction capacitance per leg	C _J 180pF	VR = 10V, T _J = 25°C

*Pulse test: Pulse width 300 μsec, 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 +150°C
Max thermal resistance per leg	R _{θJC}	1.5°C/W Junction to case
Max thermal resistance per pkg	R _{θJC}	.75°C/W Junction to case
Mounting torque		8-10 inch pounds (4-40 screw)
Typical weight		.22 ounces (6.3 grams) typical

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05-31-07 Rev. 2

UES3005C — UES3015C

Figure 1
Typical Forward Characteristics — Per Leg

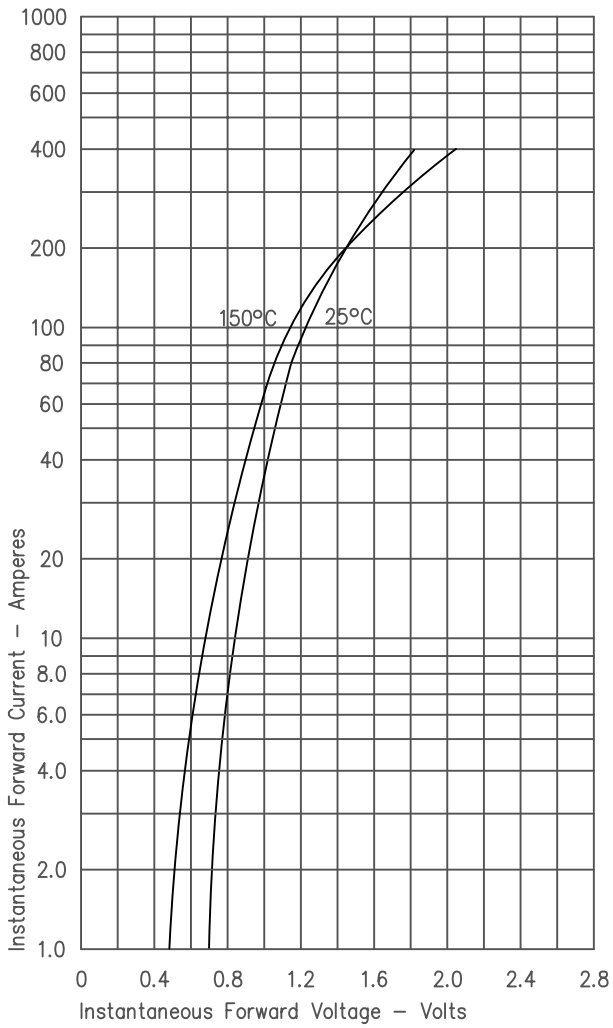


Figure 3
Typical Junction Capacitance — Per Leg

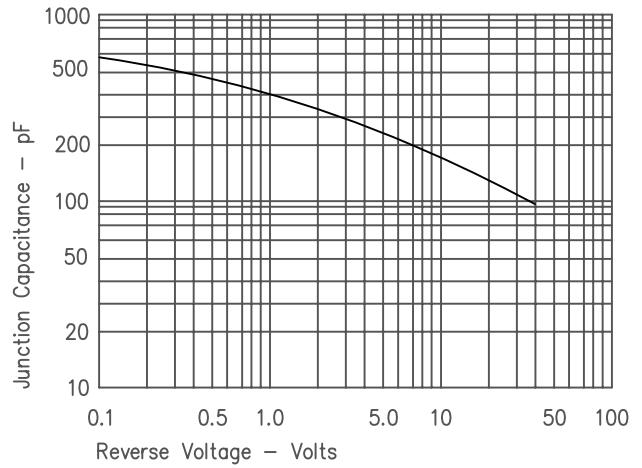


Figure 4
Forward Current Derating — Per Leg

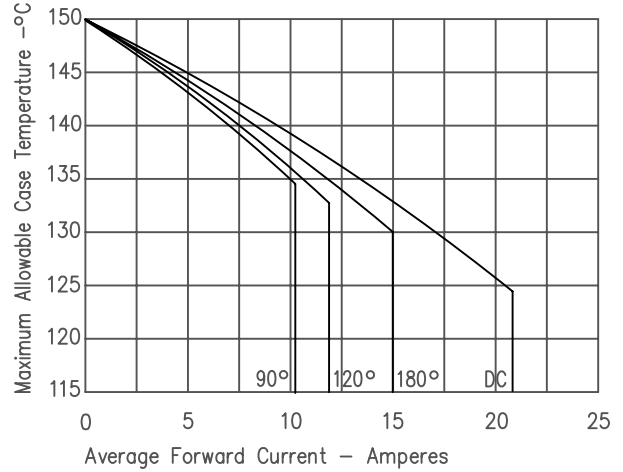


Figure 2
Typical Reverse Characteristics — Per Leg

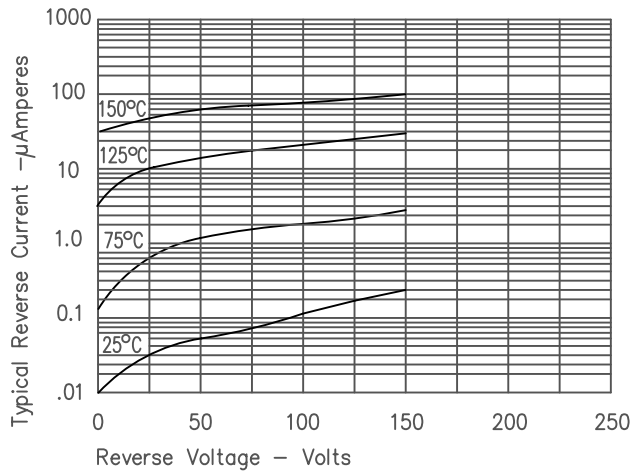


Figure 5
Maximum Forward Power Dissipation — Per Leg

