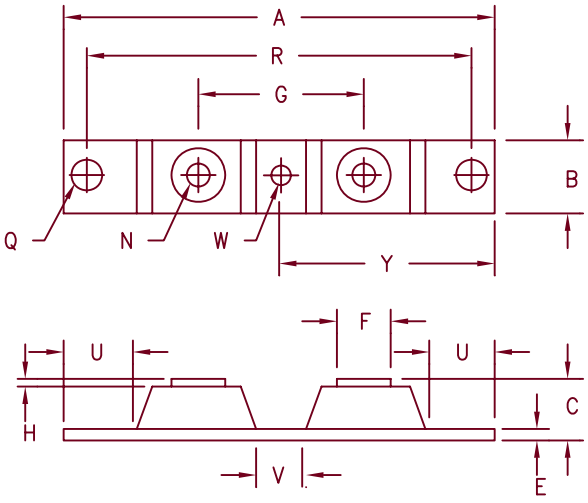
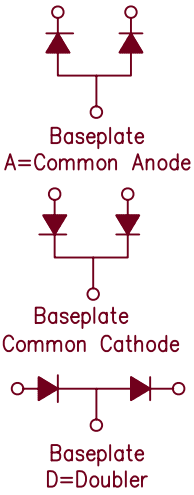
Twin Diode Module
TDM150





Notes:
Baseplate: Nickel plated copper

Dim.	Inches		Millimeters		
	Min.	Max.	Min.	Max.	Notes
A	---	3.630	---	92.20	
B	0.700	0.800	17.78	20.32	
C	---	0.625	---	15.87	
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	---	0.050	---	1.27	
N	1/4-20 UNC		---		
Q	.280	.310	6.86	7.11	Dia.
R	3.150 BSC		80.01 BSC		
U	0.600	---	15.24	---	
V	0.330	0.350	8.38	8.89	
W	0.170	0.190	4.32	4.82	Dia.
Y	1.815 BSC		46.10 BSC		

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
TDM15002*	200V	200V
TDM15004*	400V	400V
TDM15006*	600V	600V
TDM15008*	800V	800V
TDM15010*	1000V	1000V
TDM15012*	1200V	1200V
TDM15014*	1400V	1400V
TDM15016*	1600V	1600V

*Add Suffix A for Common Anode, D for Doubler

- Compact Package
- Glass Passivated Die
- 2 x 150 Amp Current Rating
- Simplifies Circuit Assembly
- High Surge Capacity

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 300 Amps	T_C = 120°C, half sine, $R_{\theta JC}$ = 0.15°C/W
Average forward current per leg	$I_{F(AV)}$ 150 Amps	T_C = 120°C, half sine, $R_{\theta JC}$ = 0.30°C/W
Maximum surge current per leg	I_{FSM} 2500 Amps	8.3 ms, half sine, T_J = 175°C
Max I^2t for fusing	I^2t 26000 A^2s	
Max peak forward voltage per leg	V_{FM} 1.1 volts	I_{FM} = 200A: T_J = 25°C*
Max peak reverse current per leg	I_{RM} 5 mA	V_{RRM}, T_J = 150°C
Typical reverse current per leg	I_{RM} 50 uA	V_{RRM}, 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	$R_{\theta JC}$	0.3°C/W Junction to case
Typical thermal resistance per leg (greased)	$R_{\theta CS}$	0.08°C/W Case to sink
Terminal Torque		40-50 inch pounds
Mounting Base Torque (outside holes)		30-40 inch pounds
Mounting Base Torque (center hole)		8-10 inch pounds
center hole must be torqued first		
Weight		2.82 ounces (80 grams) typical

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05-03-07 Rev. 2

TDM150

Figure 1
Typical Forward Characteristics – Per Leg

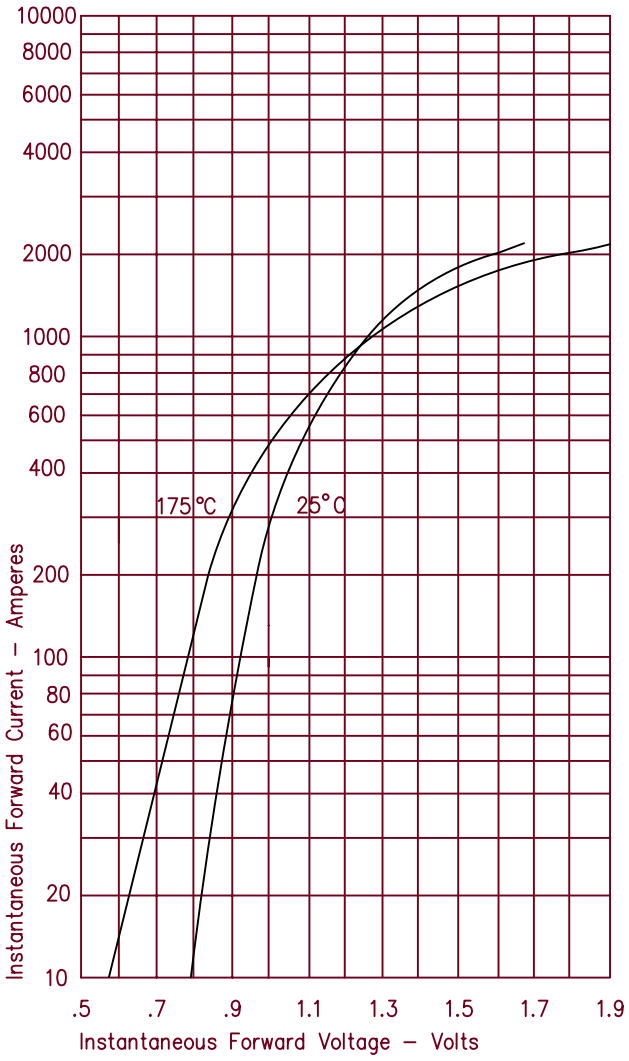

Figure 2
Typical Reverse Characteristics – Per Leg

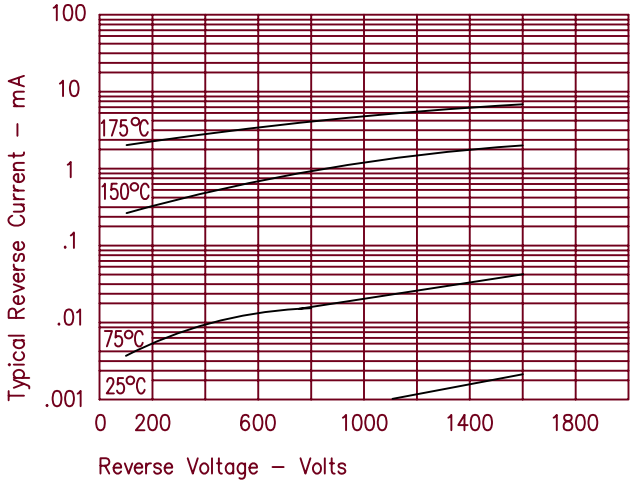

Figure 3
Forward Current Derating – Per Leg

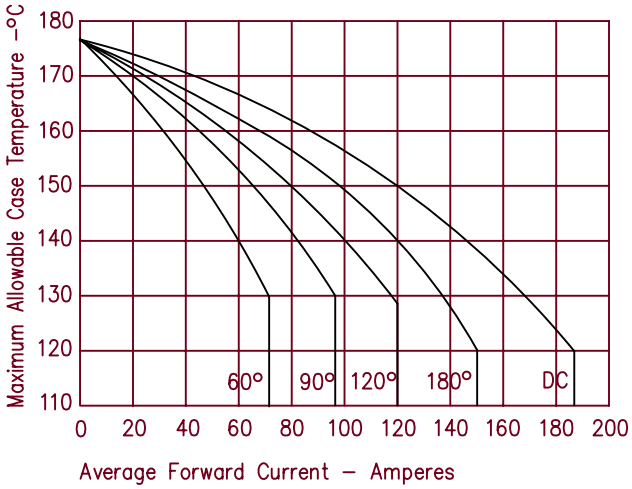

Figure 4
Maximum Forward Power Dissipation – Per Leg

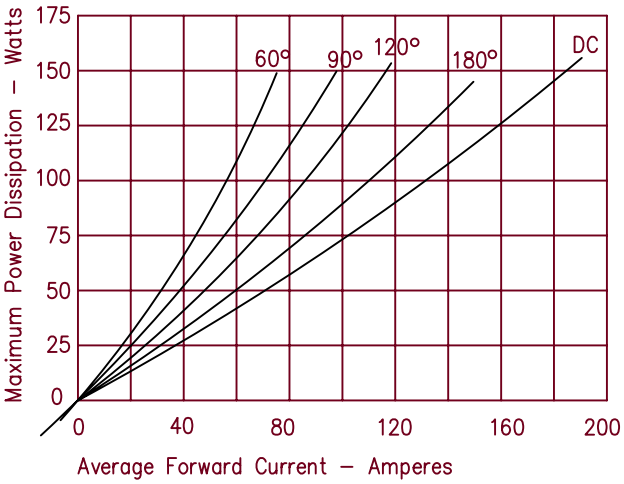

Figure 5
Transient Thermal Impedance – Per Leg