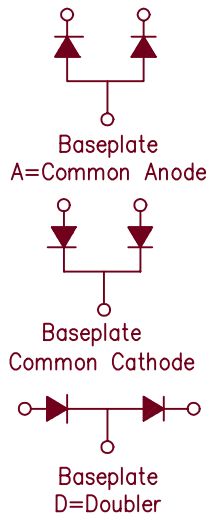
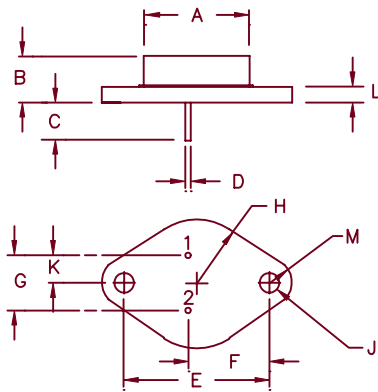


# 30 Amp Dual Power Rectifiers R702—R716X



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	—	.875	—	22.23	Dia.
B	.250	.450	6.35	11.43	
C	.312	—	7.92	—	
D	.038	.043	.97	1.09	Dia.
E	1.177	1.197	29.90	30.40	
F	.655	.675	16.64	17.15	
G	.420	.440	10.67	11.18	
H	—	.525	—	13.34	Rad.
J	.151	.161	3.84	4.09	Dia.
K	.205	.225	5.21	5.72	
L	—	.135	—	3.43	
M	—	.188	—	4.78	Rad.

TO-204AA (TO-3)

Controlled Avalanche	Microsemi Standard	Fast Recovery	Peak Reverse Voltage
R702	R711	R711X	100V
R704	R712	R712X	200V
R706	R714	R714X	400V
	R716	R716X	600V

- Glass Passivated Die
- Hermetic Package
- VRRM 100V to 600V
- 250A Surge Rating
- Available as Common Anode, Common Cathode, or Doubler

## Electrical Characteristics

Average forward current per leg	$I_{F(AV)}$ 15 Amps	$T_C = 100^\circ\text{C}$
Maximum surge current per leg	$I_{FSM}$ 250 Amps	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Maximum surge current per leg – fast recovery	$I_{FSM}$ 150 Amps	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Max $I^2t$ for fusing	$I^2t$ 260 $\text{A}^2\text{sec}$	
Max $I^2t$ for fusing – fast recovery	$I^2t$ 95 $\text{A}^2\text{sec}$	
Max peak forward voltage	VFM 1.2 Volts	$I_{FM} = 15\text{A}; T_J = 25^\circ\text{C}^*$
Max peak forward voltage – fast recovery	VFM 1.4 Volts	$I_{FM} = 15\text{A}; T_J = 25^\circ\text{C}^*$
Max peak reverse current	$I_{RM}$ 1.0 mA	VRRM, $T_J = 25^\circ\text{C}$
Max peak reverse current – fast recovery	$I_{RM}$ 5.0 mA	VRRM, $T_J = 150^\circ\text{C}$
Max recovery time – fast recovery	$t_{rr}$ 200 ns	$I_F = 1\text{A}, I_R = 2\text{A}, 25^\circ\text{C}^*$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ . Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temperature range	$T_{STG}$	$-65^\circ\text{C}$ to $150^\circ\text{C}$
Operating junction temp range	$T_J$	$-65^\circ\text{C}$ to $150^\circ\text{C}$
Maximum thermal resistance	$R_{\theta JC}$	$1.5^\circ\text{C/W}$
Typical thermal resistance (greased)	$R_{\theta CS}$	$0.5^\circ\text{C/W}$ case to sink
Weight		1.0 ounces (25.4 grams) typical

3-2-04 Rev. 0