

T-2307

MICRO
QUALITY
SEMICONDUCTOR, INC

TO-3
CASE

30 Amp Center Tapped Silicon Integrated Rectifiers

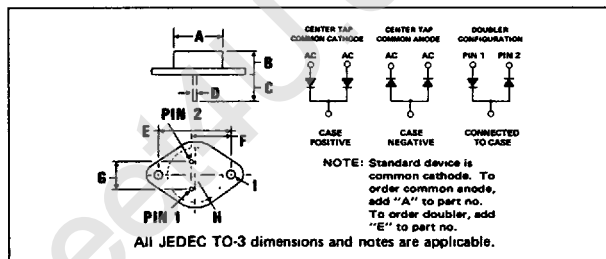
Controlled Avalanche Types with 250V,
450V, and 650V Minimum Avalanche Ratings

Non-Controlled Avalanche Types with
100V, 200V, 400V and 600V V_{RRM} Ratings

High Cycle Surge Current

Fast Recovery Types with 200 Nanosecond Maximum t_{rr}

LTR.	INCHES	MILLIMETERS
A	.73-.77 Dia.	18.54-19.56 Dia.
B	.323-.342	8.20-8.69
C	.40 Min.	10.16
D	.038-.043 Dia.	.97-1.09
E	1.180-1.194	29.97-30.33
F	.665-.675	16.89-17.15
G	.426-.440	10.82-11.18
H	.525R Max.	13.34R
I	.151-.161 Dia.	3.34-4.09



MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	CONTROLLED AVALANCHE			NON-CONTROLLED AVALANCHE				FAST RECOVERY TIME				UNITS	
		R702	R704	R706	R711	R712	R714	R716	R711X	R712X	R714X	R716X		
Series Number														
DC Blocking Voltage	V_{RM}													
Working Peak Reverse Voltage	V_{RRM}	200	400	600	100	200	400	600	100	200	400	600	Volts	
Peak Repetitive Reverse Voltage	V_{RRM}													
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	70	140	280	420	70	140	280	420	Volts	
Power Dissipation in V_{BR} Region for 100 μ sec Square Wave (Per diode)	P_{RM}	1500			NA				NA				Watts	
Continuous Power Dissipation in V_{BR} Region at $T_C = 100^\circ\text{C}$ (Per diode)	P_R	4			NA				NA				Watts	
Peak Surge Current, $\frac{1}{2}$ Cycle at 60 Hz, (Non-Rep) and $T_C = 100^\circ\text{C}$ (Per diode) (Fig. 2)	I_{FSM}				300				150				Amps	
Peak Surge Current, 1 sec at 60 Hz and $T_C = 100^\circ\text{C}$ (Per diode) (Fig. 2)	I_{FRM}				60				50				Amps	
Avg. Forward Current at $T_C = 100^\circ\text{C}$ (Per diode)	I_o				15								Amps	
Junction Operating and Storage Temperature Range	T_J, T_{STG}				- 65 to + 150								$^\circ\text{C}$	
Fusing Data	I^2T				375				95				Amps ² -Sec.	

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	CONTROLLED AVALANCHE			NON-CONTROLLED AVALANCHE				FAST RECOVERY TIME				UNITS	
		R702	R704	R706	R711	R712	R714	R716	R711X	R712X	R714X	R716X		
Series Number														
Minimum Avalanche Voltage	V_{BR}	250	450	650	NA				NA				Volts	
Maximum Avalanche Voltage	V_{BR}	700	900	1100	NA				NA				Volts	
Maximum Instantaneous Forward Voltage Drop (Per diode) at 15 Amps (Fig. 3)	V_{FM}				1.2				1.4				Volts	
Maximum Reverse Current at Rated V_{RM} at $T_C = 100^\circ\text{C}$	I_{FRM}				1				5				mA	
Maximum Reverse Recovery Time at $I_F = 1A, I_R = 2A, I_{RR} = 0.5$ Amp	t_{rr}				NA				200				nsec	
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$				1.5								$^\circ\text{C}/\text{W}$	

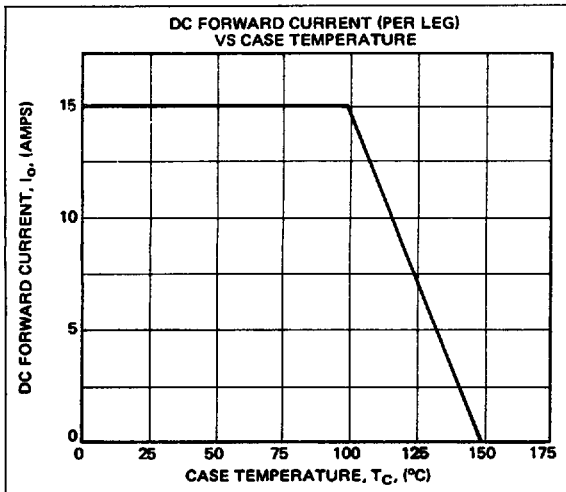


FIGURE 1

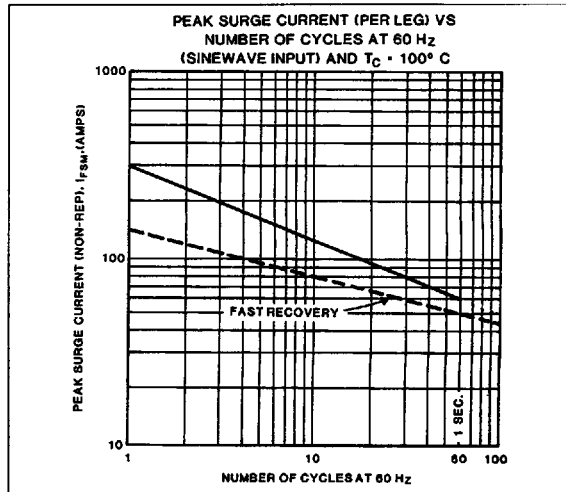


FIGURE 2

T-23-07

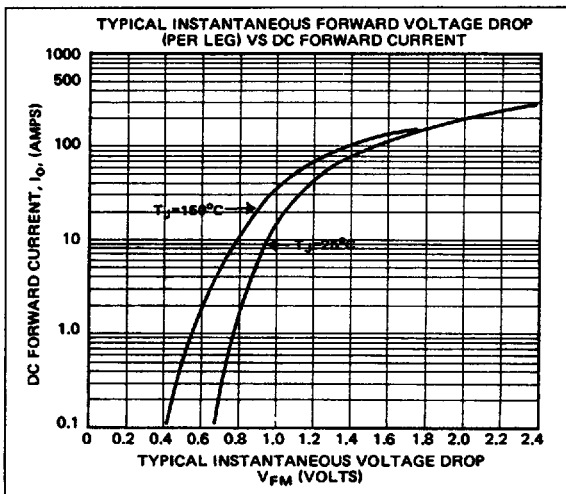


FIGURE 3

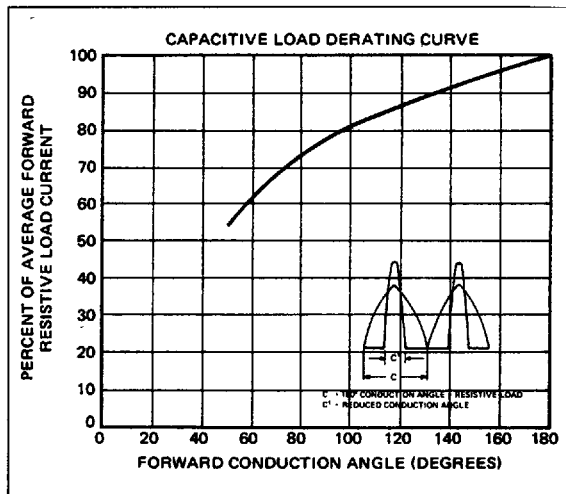


FIGURE 4

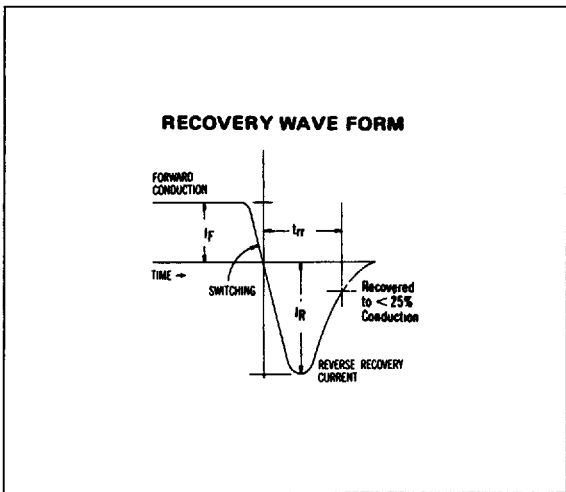


FIGURE 5