T-03-13

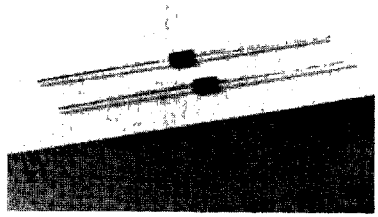
MICRO QUALITY
SEMICONDUCTOR, INC

1 Amp Fast Recovery Time Rectifiers

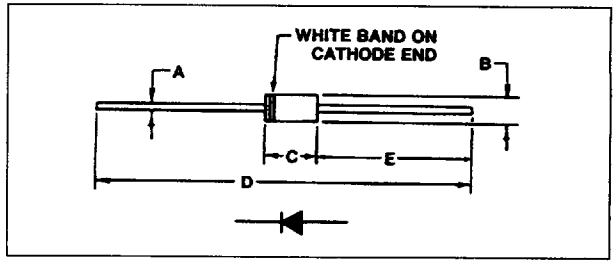
200 Nanosecond Reverse Recovery Time at 100V, 200V, 400V, and 600V V_{RRM} Ratings

350 Nanosecond Reverse Recovery Time 800V and 1000V V_{RRM} Ratings

30 Amp Peak One Half Cycle Surge Rating



LTR.	INCHES	MILLIMETERS
A	.030–.034 Dia.	,76–,86 Dia.
B	.10–.107 Dia.	2,54–2,72 Dia.
C	.185–.205	4,70–5,21
D	2.40	60,96
E	.9–1.1	22,9–28,0



MAXIMUM RATINGS at $T_A = 25°C$ (Unless Otherwise Specified)

RATINGS	SYMBOL	V110X	V120X	V140X	V160X	V180X	V1100X	UNITS
DC Blocking Voltage Working Peak Reverse Voltage Peak Repetitive Reverse Voltage	V_{RM} V_{RWM} V_{RRM}	100	200	400	600	800	1000	Volt
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	700	Volt
Peak Surge Current, ½ Cycle @ 60Hz (Non-Rep) and $T_A = 40°C$	I_{FSM}	30						Amp
DC Forward Current @ $T_A = 40°C$	I_O	1						Amp
Junction Storage Temperature Range	T_{STG}	−50 to +175						°C
Junction Operating Temperature Range	T_J	−50 to +150*						°C

*T_J MAX = 125°C when V_{RWM} Exceeds 200V

ELECTRICAL CHARACTERISTICS At $T_A = 25°C$ (Unless Otherwise Specified)

CHARACTERISTICS	SYMBOL	V110X	V120X	V140X	V160X	V180X	V1100X	UNITS
Max Reverse Recovery Time $I_F = 1$ A, $I_R = 2$ A	t_{rr}	200				350	350	nsec
Max Reverse Current @ Rated V_{RM} @ $T_A = 40°C$	I_{RM}	10						µA
Max Reverse Current @ Rated V_{RM} @ $T_A = 125°C$	I_{RM}	2						mA
Max Instantaneous Fwd Voltage Drop @ 1 A	V_{FM}	1.1						Volt

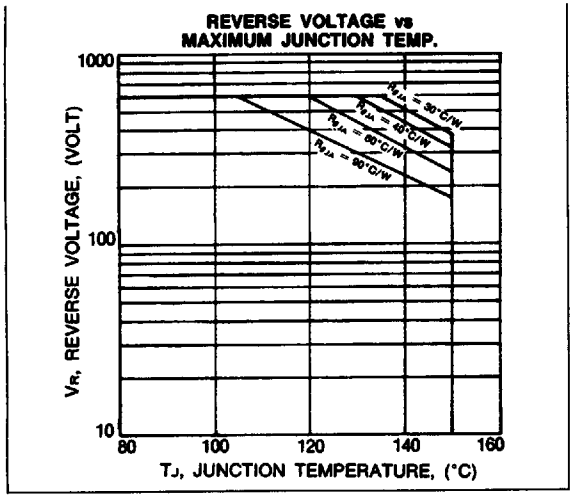
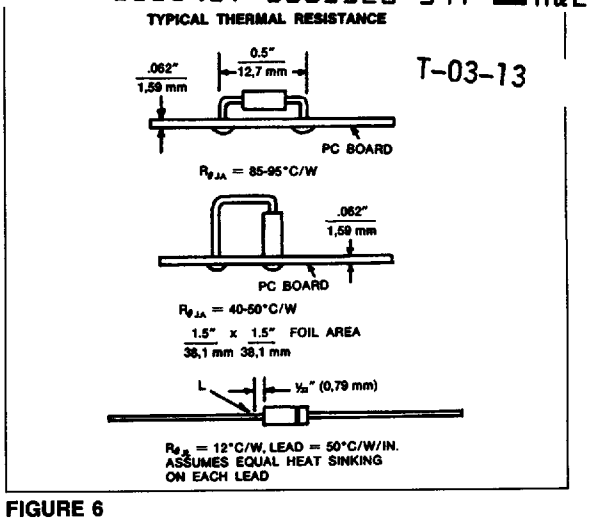


FIGURE 1



T-03-13

FIGURE 6

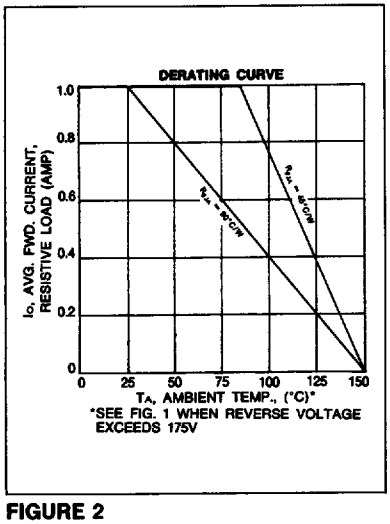


FIGURE 2

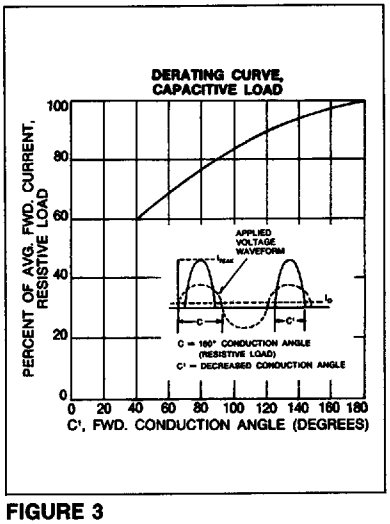
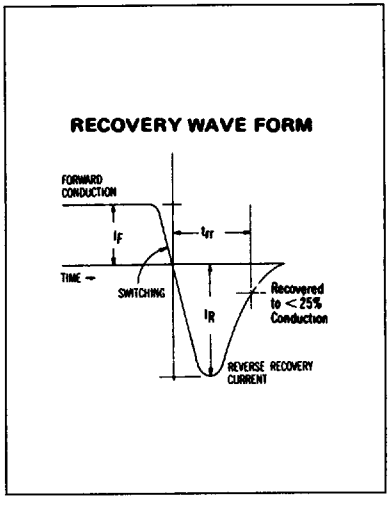


FIGURE 3



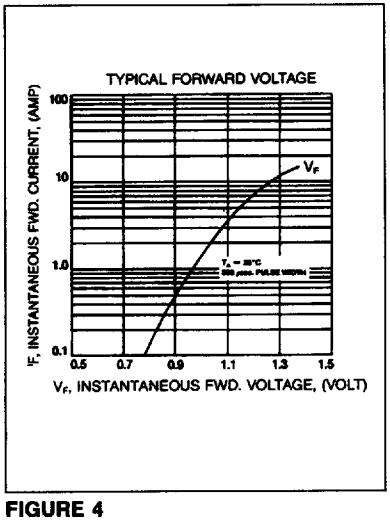


FIGURE 4

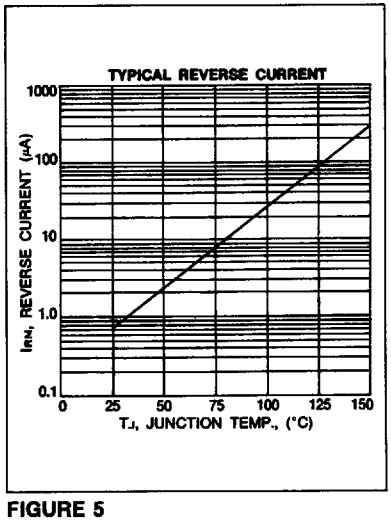


FIGURE 5