

1N3879 THRU 1N3883

6 AMP

FAST RECOVERY RECTIFIER

50-400 VOLTS



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CASE STYLE DO-4



FEATURES

- FAST RECOVERY 100 NSEC MAX.
 - PIV TO 400 VOLTS
 - LOW REVERSE LEAKAGE
 - HERMETICALLY SEALED
 - SINGLE CHIP CONSTRUCTION
 - HIGH SURGE RATING 150 AMPS
 - LOW THERMAL RESISTANCE
- FOR REVERSE POLARITY ADD "R" TO PART NUMBER

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	V_{RM} (rep) V_R	50 100 200 300 400	Volts
RMS Reverse Voltage	V_r	35 70 140 210 280	Volts
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_A = 55^\circ\text{C}$)	I_0	6	Amps
Peak Repetitive Forward Current ($T_A = 55^\circ\text{C}$, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	I_{FM} (rep)	50	Amps
Peak Surge Current ($T_A = 55^\circ\text{C}$, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	I_{FM} (surge)	150	Amps
Operating and Storage Temperature	T_J, T_{stg}	-65 to +175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	3	$^\circ\text{C/W}$

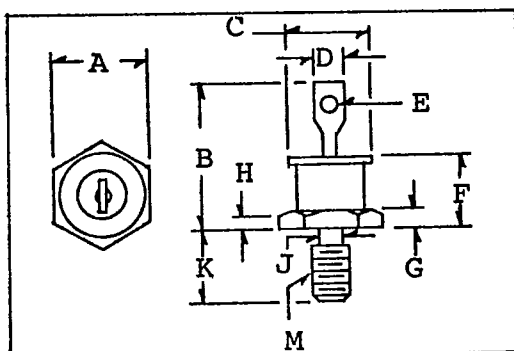
ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle (I_O (Max), 60 Hz. Square Wave, $T_A = 55^\circ\text{C}$)	$V_{F(AV)}$	---	Vdc
Max Instantaneous Forward Drop ($I_F = 6$ Adc, $T_A = 25^\circ\text{C}$, 300 μs Pulse) ($I_F = 19$ Adc, $T_A = 150^\circ\text{C}$, 300 μs Pulse)	V_F	1.4 1.5	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated V_R , 60Hz, Square Wave, $T_A = 100^\circ\text{C}$)	$I_{R(AV)}$	1	mA
Max Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$)	I_R	.015	mA
Max Junction Capacitance ($V_R = 10$ V, $T_A = 25^\circ\text{C}$)	C_J	100	pf

REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 1.0$ Amp to $V_R = 30$ Vdc.)	t_{rr}	---	100	200	ns

PHYSICAL DIMENSIONS

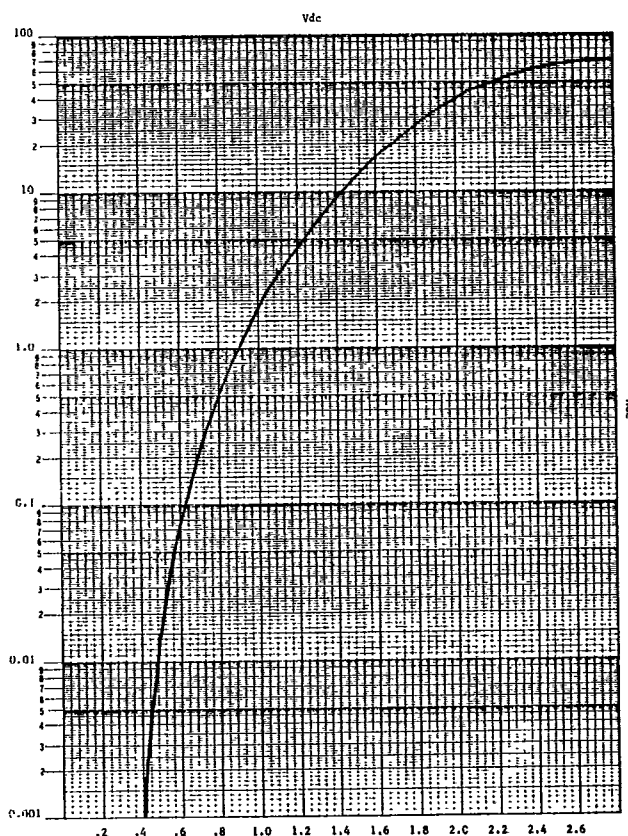


KEY TO DIMENSIONS:

(Inches)

A	=	.424 - .437
B	=	.800 MAX.
C	=	.424 MAX.
D	=	.250 MAX.
E	=	.060 MIN.
F	=	.405 MAX.
G	=	.075 - .175
H	=	.060 MIN.
J	=	.163 - .189
K	=	.422 - .453
M	=	10-32 UNF-2A

TYPICAL OPERATING CURVES



SOLID STATE DEVICES, INC.