

# 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)		Volts
	$V_R$	50	
	1N3879	100	
	1N3880	200	
	1N3881	300	
RMS Reverse Voltage	$V_r$		Volts
	1N3879	35	
	1N3880	70	
	1N3881	140	
	1N3882	210	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_A = 55^\circ\text{C}$ )	$I_0$	6	Amps
	$I_{FM}$ (rep)	50	Amps
	$I_{FM}$ (surge)	150	Amps
	$T_J, T_{stg}$	-65 to +175	$^\circ\text{C}$
	Operating and Storage Temperature		

#### THERMAL CHARACTERISTICS

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

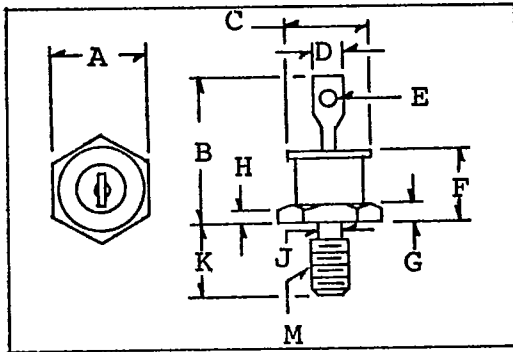
**ELECTRICAL CHARACTERISTICS**

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 $\mu\text{s}$ Pulse) ( $I_F = 19$ Adc, $T_A = 150^\circ\text{C}$ , 300 $\mu\text{s}$ 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**

