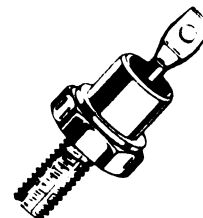


1N3879 thru 1N3883

FAST RECOVERY POWER RECTIFIERS

50-400 VOLTS
6 AMPERES



• MAXIMUM RATINGS

Rating	Symbol	1N3879	1N3880	1N3881	1N3882	1N3883	Unit
Peak Repetitive Reverse Voltage	VRRM	50	100	200	300	400	Volts
Working Peak Reverse Voltage	VRWM						
DC Blocking Voltage	VR						
Non-Repetitive Peak Reverse Voltage	VRSM	75	150	250	350	450	Volts
RMS Reverse Voltage	VR(RMS)	35	70	140	210	280	Volts
Average Rectified Forward Current (Single phase, resistive load, $T_C = 100^\circ\text{C}$)	I_O	6.0					Amps
Non-Repetitive Peak Surge Current (surge applied at rated load conditions)	I_{FSM}	200 (one cycle)					Amps
Operating Junction Temperature Range	T_J	-65 to +150					$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +175					$^\circ\text{C}$

THERMAL CHARACTERISTICS

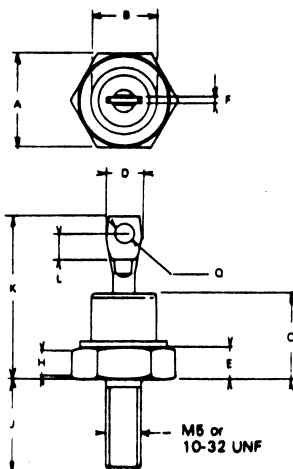
Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.0	$^\circ\text{C/W}$

• ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage ($I_F = 19 \text{ Amp}$, $T_J = 150^\circ\text{C}$)	V_F	—	1.05	1.2	Volts
Forward Voltage ($I_F = 6.0 \text{ Amp}$, $T_C = 25^\circ\text{C}$)	V_F	—	0.90	1.2	Volts
Reverse Current (rated dc voltage) $T_C = 25^\circ\text{C}$	I_R	—	10	15	μA
$T_C = 100^\circ\text{C}$		—	0.5	1.0	mA

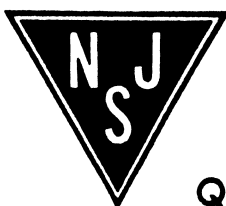
• REVERSE RECOVERY CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time - Soft Recovery ($I_F = 1.0 \text{ Amp}$ to $V_R = 30 \text{ Vdc}$, Figure 16)	t_{rr}	—	150	200	ns
($I_{FM} = 36 \text{ amp}$, $di/dt = 25 \text{ A}/\mu\text{s}$, Figure 17)		—	200	300	
Reverse Recovery Current ($I_F = 1.0 \text{ Amp}$ to $V_R = 30 \text{ Vdc}$, Figure 16)	$I_{RM(REC)}$	—	—	4.0	Amp



	MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX
A	10.77	11.10	0.424	0.437
B	—	10.77	—	0.424
C	—	10.29	—	0.450
D	—	6.35	—	0.250
E	1.91	4.45	0.075	0.176
F	0.80	—	0.023	—
H	1.50	—	0.080	—
J	10.72	11.51	0.422	0.453
K	—	20.32	—	0.800
L	2.00	—	0.078	—
Q	1.50	—	0.080	—

DO-4



Quality Semi-Conductors