

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

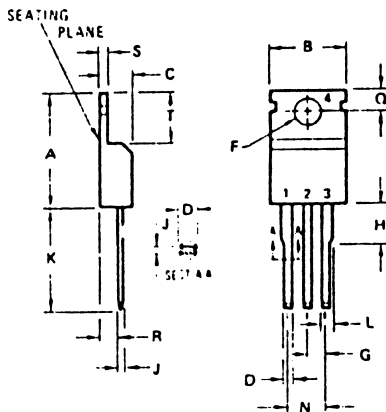
2N6397

SILICON CONTROLLED
 RECTIFIERS

TELEPHONE: (973) 376-2922
 (212) 227-6005
 FAX: (973) 376-8960

*MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Forward and Reverse Blocking Voltage ($T_J = -40$ to 125°C)	V_{RRM} V_{DRM}	400	Volts
RMS On-State Current $T_C = 90^\circ\text{C}$ (All Conduction Angles)	$I_{T(RMS)}$	12	Amps
Peak Non-Repetitive Surge Current (1/2 cycle, Sine Wave, 60 Hz, $T_J = 125^\circ\text{C}$)	I_{TSM}	100	Amps
Circuit Fusing ($T_J = -40$ to $+125^\circ\text{C}$, $t = 1.0$ to 8.3 ms)	I^2t	40	A^2s
Forward Peak Gate Power	P_{GM}	20	Watts
Forward Average Gate Power	$P_{G(AV)}$	0.5	Watt
Forward Peak Gate Current	I_{GM}	2.0	Amps
Operating Junction Temperature Range	T_J	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40 to +150	$^\circ\text{C}$
THERMAL CHARACTERISTICS			
Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.0	$^\circ\text{C/W}$
* Indicates JEDEC Registered Data. ▲ Trademark of Motorola Inc.			

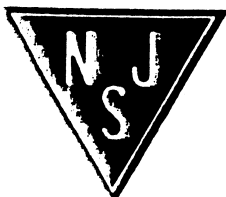


STYLE 1:

- PIN 1 CATHODE
- 2 ANODE
- 3 GATE
- 4 ANODE

All JEDEC dimensions and notes apply

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	14.23	15.87	0.560	0.625
B	9.56	10.66	0.380	0.420
C	3.56	4.82	0.140	0.190
D	0.51	1.14	0.020	0.045
F	3.53	3.73	0.139	0.147
G	2.29	2.79	0.090	0.110
H		6.35		0.250
J	0.31	1.14	0.012	0.045
K	12.70	14.27	0.500	0.562
L	1.14	1.77	0.045	0.070
N	4.33	5.33	0.170	0.210
Q	2.54	3.04	0.100	0.120
R	2.04	2.92	0.080	0.115
S	0.51	1.39	0.020	0.055
T	5.95	6.35	0.230	0.270



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that data sheets are current before placing orders.

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

Characteristic	Symbol	Min	Typ	Max	Unit
* Peak Forward Blocking Current ($V_D = \text{Rated } V_{DRM} @ T_J = 125^\circ\text{C}$)	I_{DRM}	–	–	2.0	mA
* Peak Reverse Blocking Current ($V_R = \text{Rated } V_{RRM} @ T_J = 125^\circ\text{C}$)	I_{RRM}	–	–	2.0	mA
* Forward "On" Voltage ($I_{TM} = 24 \text{ A Peak}$)	V_{TM}	–	1.7	2.2	Volts
* Gate Trigger Current (Continuous dc) ($V_D = 12 \text{ Vdc}, R_L = 100 \text{ Ohms}$)	I_{GT}	–	5.0	30	mA
* Gate Trigger Voltage (Continuous dc) ($V_D = 12 \text{ Vdc}, R_L = 100 \text{ Ohms}$)	V_{GT}	–	0.7	1.5	Volts
($V_D = \text{Rated } V_{DRM}, R_L = 100 \text{ Ohms}, T_J = 125^\circ\text{C}$)	V_{GD}	0.2	–	–	Volts
* Holding Current ($V_D = 12 \text{ Vdc}$)	I_H	–	6.0	40	mA
Turn-On Time ($I_{TM} = 12 \text{ A}, I_{GT} = 40 \text{ mAdc}, V_D = \text{Rated } V_{DRM}$)	t_{gt}	–	1.0	2.0	μs
Turn-Off Time ($V_D = \text{Rated } V_{DRM}$) ($I_{TM} = 12 \text{ A}, I_R = 12 \text{ A}$) ($I_{TM} = 12 \text{ A}, I_R = 12 \text{ A}, T_J = 125^\circ\text{C}$)	t_q	–	15 35	–	μs
Critical Rate-of-Rise of Off-State Voltage Exponential ($V_D = \text{Rated } V_{DRM}, T_J = 125^\circ\text{C}$)	dv/dt	–	50	–	$\text{V}/\mu\text{s}$

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