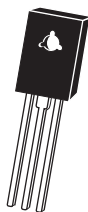


2N6071, A, B
2N6073, A, B
2N6075, A, B

SENSITIVE GATE TRIAC
4.0 AMPS, 200 THRU 600 VOLTS



TO-126 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6071, A, B series types are silicon sensitive gate triacs designed for such applications as light dimmers, motor controls, heating controls and power supplies.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: ($T_J=25^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	2N6071 2N6071A 2N6071B	2N6073 2N6073A 2N6073B	2N6075 2N6075A 2N6075B	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	V
RMS On-State Current ($T_C=85^{\circ}\text{C}$)	$I_T(\text{RMS})$		4.0		A
Peak One Cycle Surge (60Hz, $T_J=110^{\circ}\text{C}$)	I_{TSM}		30		A
I^2t Value for Fusing ($t=8.3\text{ms}$)	I^2t		3.7		A^2s
Peak Gate Power ($T_C=85^{\circ}\text{C}$)	P_{GM}		10		W
Average Gate Power ($t=8.3\text{ms}$, $T_C=85^{\circ}\text{C}$)	$P_{G(AV)}$		0.5		W
Peak Gate Voltage ($T_C=85^{\circ}\text{C}$)	V_{GM}		5.0		V
Storage Temperature	T_{stg}		-40 to +150		$^{\circ}\text{C}$
Junction Temperature	T_J		-40 to +110		$^{\circ}\text{C}$
Thermal Resistance	θ_{JC}		3.5		$^{\circ}\text{C}/\text{W}$
Thermal Resistance	θ_{JA}		75		$^{\circ}\text{C}/\text{W}$
Maximum Lead Temperature	T_L		260		$^{\circ}\text{C}$

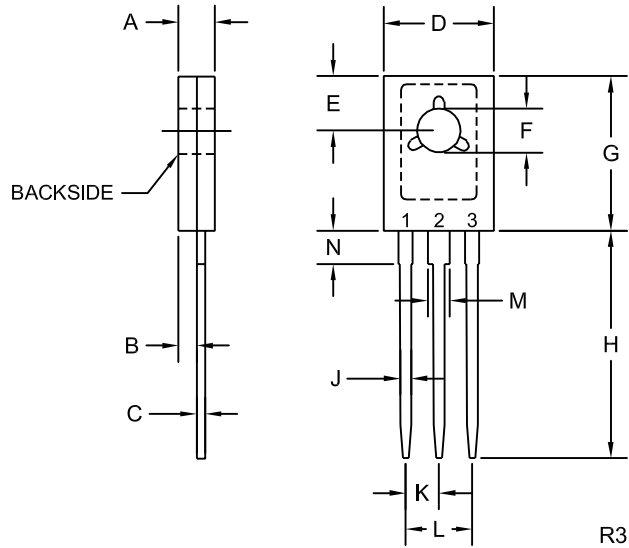
ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	A Series		B Series		UNITS
		TYP	MAX	TYP	MAX	
I_{DRM}, I_{RRM}	$V_D=\text{Rated } V_{DRM}, V_{RRM}, T_J=25^{\circ}\text{C}$	10	10	10	10	μA
I_{DRM}, I_{RRM}	$V_D=\text{Rated } V_{DRM}, V_{RRM}, T_J=110^{\circ}\text{C}$	2.0	2.0	2.0	2.0	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD I}, T_J=25^{\circ}\text{C}$	30	5.0	3.0	3.0	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD II}, T_J=25^{\circ}\text{C}$	-	5.0	3.0	3.0	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD III}, T_J=25^{\circ}\text{C}$	30	5.0	3.0	3.0	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD IV}, T_J=25^{\circ}\text{C}$	-	10	5.0	5.0	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD I}, T_J=-40^{\circ}\text{C}$	60	20	15	15	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD II}, T_J=-40^{\circ}\text{C}$	-	20	15	15	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD III}, T_J=-40^{\circ}\text{C}$	60	20	15	15	mA
I_{GT}	$V_D=12\text{V}, R_L=100\Omega, \text{QUAD IV}, T_J=-40^{\circ}\text{C}$	-	30	20	20	mA
I_H	$V_D=12\text{V}, I_T=1.0\text{A}, T_J=25^{\circ}\text{C}$	30	15	15	15	mA
I_H	$V_D=12\text{V}, I_T=1.0\text{A}, T_J=-40^{\circ}\text{C}$	70	30	30	30	mA
V_{GT}	$V_D=12\text{V}, R_L=100\Omega, T_J=25^{\circ}\text{C}, \text{QUAD I, II, III, IV}$	2.0	2.0	2.0	2.0	V
V_{GT}	$V_D=12\text{V}, R_L=100\Omega, T_J=-40^{\circ}\text{C}, \text{QUAD I, II, III, IV}$	2.5	2.5	2.5	2.5	V
V_{TM}	$I_{TM}=6.0\text{A}$	2.0	2.0	2.0	2.0	V
t_{on}	$I_{TM}=14\text{A}, I_{GT}=100\text{mA}$	1.5	1.5	1.5	1.5	μs
dv/dt	$V_D=\text{Rated } V_{DRM}, I_{TM}=5.7\text{A}, T_J=85^{\circ}\text{C}$	5.0	5.0	5.0	5.0	$\text{V}/\mu\text{s}$

R0 (27-April 2004)

SENSITIVE GATE TRIAC
4.0 AMPS, 200 THRU 600 VOLTS

TO-126 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) MT1
- 2) MT2
- 3) GATE

MARKING CODE:

FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.094	0.110	2.40	2.80
B	0.050		1.27	
C	0.015	0.030	0.38	0.75
D	0.291	0.335	7.40	8.50
E	0.148		3.75	
F	0.118	0.134	3.00	3.40
G	0.413	0.472	10.50	12.00
H	0.618		15.70	
J	0.024	0.035	0.62	0.90
K	0.089		2.25	
L	0.177		4.50	
M	0.045	0.055	1.14	1.40
N	0.083		2.10	

TO-126 (REV:R3)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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