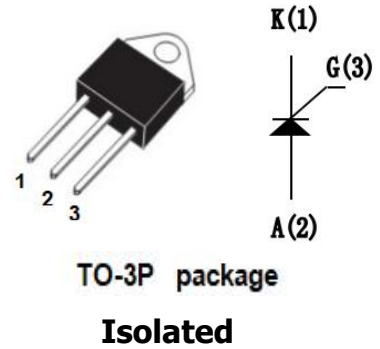


isc Thyristors
TN8050H-12PI
FEATURES

- I_{GT} Maximum= 50mA
- Max. Blocking Voltage = V_{DRM} , V_{RRM} = 1200 V
- High Static and Dynamic Commutation

APPLICATIONS

- Uninterruptible Power Supply (UPS)
- Solid State Relay (SSR)
- Battery Charger
- Soft Starter for Motor Drive


ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

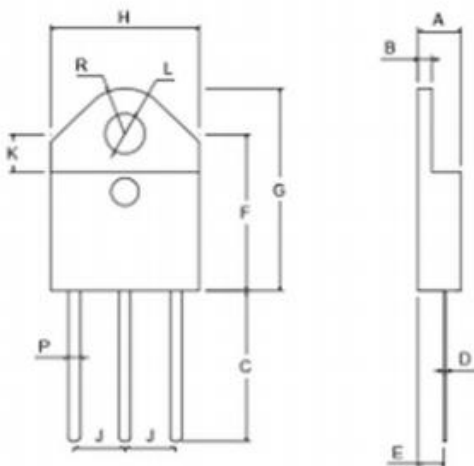
SYMBOL	PARAMETER	MIN	UNIT
V_{DRM} , V_{RRM}	Repetitive Peak Off-state Voltage	1200	V
$I_{T(RMS)}$	On-state RMS Current @Tc=55°C	80	A
$I_{T(AV)}$	On-state Current @Tc=55°C	51	A
I_{TSM}	Non-repetitive Peak On-state Current, $t_p= 8.3ms$	745	A
	Non-repetitive Peak On-state Current, $t_p= 10ms$	680	A
I^2t	I^2t Value for Fusing, $t_p= 10ms$	2312	A ² S
$P_{G(AV)}$	Average Gate Power Dissipation, $T_j= 150°C$	1	W
di/dt	Repetitive Rate of Rise of On-state Current after Triggering, f= 50Hz	200	A/us
I_{GM}	Peak Gate Current, $t_p=20us$, $T_j= 150°C$	8	A
T_j	Max. Operating Junction Temperature	150	°C
T_{stg}	Storage Temperature	-40~150	°C

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.8	°C/W

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_D=V_{DRM}$	--	5.0	μA
I_{DRM}	Repetitive peak off-state current	$V_D=V_{DRM}$	--	5.0	μA
dv/dt	Critical Rate of Rise of Off-state Voltage	$V_D= 800\text{V}, T_j= 125^\circ\text{C}$	2000	--	V/us
I_{GT}	Gate trigger current	$V_D= 12\text{V}, R_L= 33\ \Omega$	--	50	mA
I_H	Holding Current	$I_T= 0.5\text{A}$	--	100	mA
I_L	Latching Current	$I_G= 1.2 \times I_{GT}$	--	125	mA
V_{GT}	Gate trigger voltage all quadrant	$V_D= 12\text{V}, R_L= 33\ \Omega$	--	1.0	V
V_{TM}	On-state Voltage	$I_{TM}= 64\text{A}, t_p= 380\mu\text{s}$	--	1.55	V

PACKAGE OUTLINE
 Dimensions in mm


Dimension	Millimeter		Inches	
	Min	Max	Min	Max
A	4.40	4.60	0.173	0.181
B	1.45	1.60	0.057	0.063
C	15.20	15.60	0.598	0.614
D	0.55	0.70	0.022	0.028
E	2.70	2.90	0.106	0.114
F	15.80	16.50	0.622	0.650
G	21.05	21.75	0.829	0.856
H	15.10	15.50	0.594	0.610
J	5.15	5.55	0.203	0.219
K	3.85	4.25	0.152	0.167
L	4.00	4.20	0.157	0.165
P	1.20	1.37	0.047	0.054
R		4.60	0.000	0.181

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