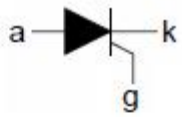
isc Thyristors 5P4M

DESCRIPTION

- Easy installation by TO-220 package
- 80A surge current
- High voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

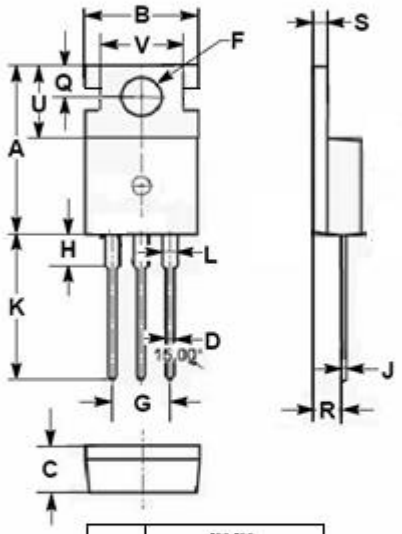


1 cathode
2 anode
3 gate

TO-220C package

APPLICATIONS

- Motor speed control for household appliance.
- Temperature control for heater and constant temperature box.
- Constant voltage power source and battery charger.
- Automotive application such as regulator.
- Various solid state relay etc.



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage (note:R_{GK}=1kΩ)	400	V
V_{RRM}	Repetitive peak reverse voltage(note:R_{GK}=1kΩ)	400	V
$I_{T(AV)}$	On-state current (Tc=103 ℃, θ =180° Single phase(1/2wave)	5	A
I_{TSM}	Surge non-repetitive on-state current	80	A
P_{GM}	Peak gate power dissipation(f ≥ 50Hz, Duty ≤10%)	5	W
$P_{G(AV)}$	Average gate power dissipation	0.5	W
I_{FGM}	Peak gate forward current (f ≥ 50Hz, Duty ≤10%)	2	A
V_{RGM}	Peak gate reverse voltage	10	V
T_j	Junction temperature	-40 to + 125	℃

ELECTRICAL CHARACTERISTICS (T_C=25℃ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{RM}=V_{RRM}$,Tj=125℃			2	mA
I_{DRM}	Repetitive peak off-state current	$V_{DM}=V_{DRM}$,Tj=125℃			2	mA
V_{TM}	On-state voltage	I_{TM}=10A			1.4	V
I_{GT}	Gate-trigger current	V_{DM}=6V;R_L=100Ω			10	mA
V_{GT}	Gate-trigger voltage	V_{DM}=6V;R_L=100Ω			1.5	V
V_{GD}	Gate non-trigger voltage	V_{DRM}=1/2V_{DRM},Tj=125℃	0.2			V
I_H	Holding current	V_D=24V		10		mA
$R_{th(j-c)}$	Thermal resistance	Junction to case			3	℃/W

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