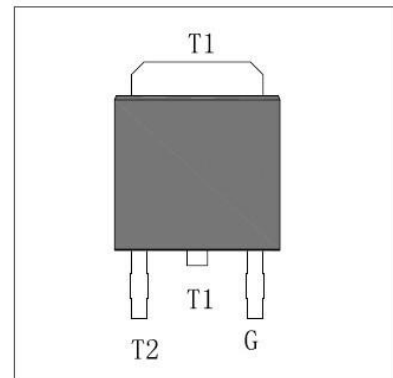


isc Thyristors**BT151S-650L****APPLICATIONS**

Mesa glass passivation technology;
 Have high blocking voltage and high temperature stability cleaner;
 Electric tools such as motor speed controller;
 Solid state relay;
 Heating controller (temperature);
 Other phase control circuit
 Minimum Lot-to-Lot variations for robust device performance and reliable operation

**ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)**

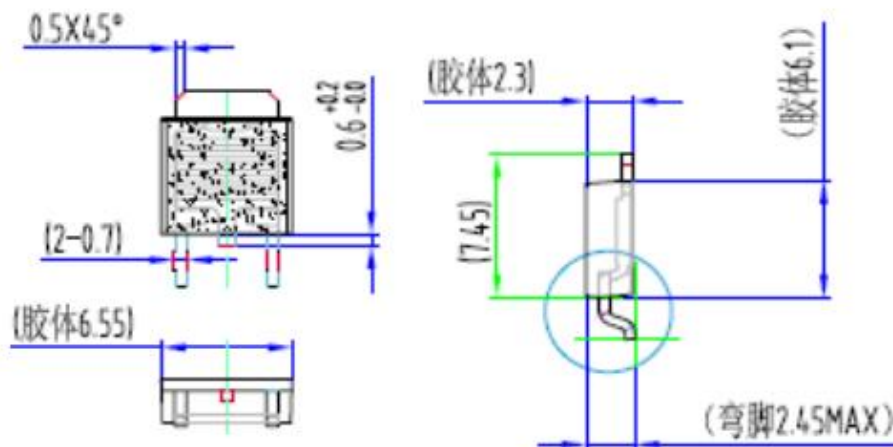
SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage	650	V
V_{RRM}	Repetitive peak reverse voltage	650	V
$I_{\text{T(AV)}}$	On-state current $T_c=80^{\circ}\text{C}$	7.5	A
I_{TSM}	Surge non-repetitive on-state current, $T=10\text{ms}$	120	A
$P_{\text{G(AV)}}$	Average gate power	5	W
di/dt	Repetitive rate of rise of on-state current after triggering	5	A/us
I^2t	I^2t for fusing $t = 10 \text{ ms}$	72	A^2S
I_{GM}	Peak gate current $t_p=20\mu\text{s}$, $T_j=125^{\circ}\text{C}$	2	A
T_j	Operating Junction temperature	$-40 \sim +125$	$^{\circ}\text{C}$
T_{stg}	Storage temperature	$-40 \sim +150$	$^{\circ}\text{C}$

isc Thyristors

BT151S-650L

ELECTRICAL CHARACTERISTICS (TC=25°C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{RRM}=650V$, $T_j=125^\circ C$	--	--	5	mA
I_{DRM}	Repetitive peak off-state current	$V_{DRM}=650V$, $T_j=125^\circ C$	--	--	5	mA
V_{TM}	On-state voltage	$I_{TM}=23A$	--	--	1.75	V
I_{GT}	Gate-trigger current	$V_D=12V$; $R_L=100\Omega$	--	--	5	mA
V_{GT}	Gate-trigger voltage	$V_D=12V$; $R_L=100\Omega$	--	--	1.5	V
I_H	Holding current	$I_T=0.5A$	--	--	20	mA
dv/dt	Critical rate of rise of off-state voltage	$V_D=0.67V_{DRM}$ $T_j=125^\circ C$	200	--	--	V/us
$R_{th(j-c)}$	Thermal resistance junction to mounting base	in free air	--	1.75	--	$^\circ C/W$

**NOTICE:**

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.