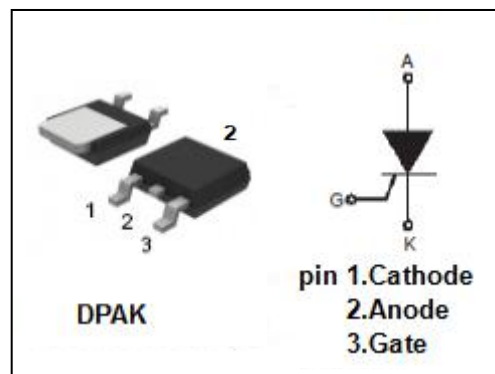


isc Thyristors

BT258S-800R

APPLICATIONS

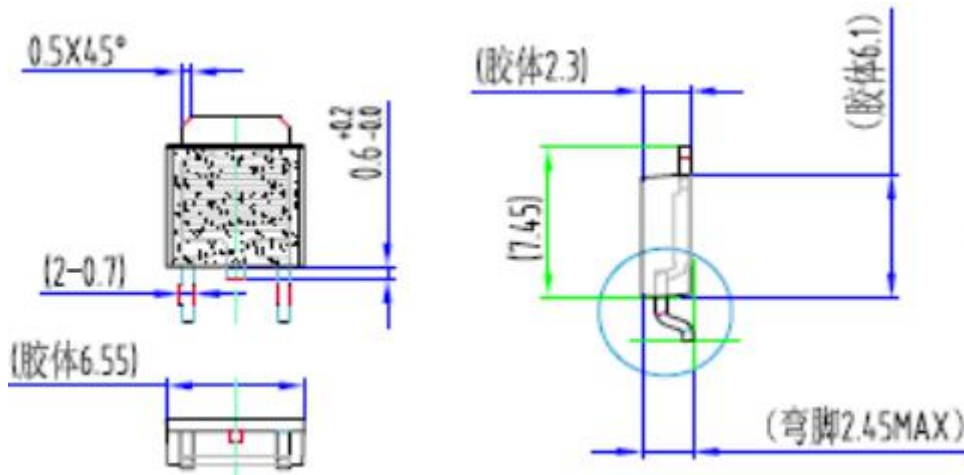
- It is suitable to fit all modes of control found in applications such as overvoltage crowbar protection, motor control circuits in power tools and kitchen aids, in-rush current limiting circuits, capacitive discharge ignition, voltage regulation circuits etc.
- Minimum Lot-to-Lot variations for robust 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	800	V
V_{RRM}	Repetitive peak reverse voltage	800	V
$I_{\text{T(AV)}}$	On-state current $T_c=80^\circ\text{C}$	5	A
$I_{\text{T(RMS)}}$	RMS on-state current	8	A
I_{TSM}	Surge non-repetitive on-state current $T_P=10\text{ms}$	75	A
$P_{\text{G(AV)}}$	Average gate power	0.5	W
di/dt	Repetitive rate of rise of on-state current after triggering $T_j=125^\circ\text{C}$	50	A/us
I^2t	I^2t for fusing $t = 10 \text{ ms}$	28	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	$-40 \sim +150$	$^\circ\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{\text{RRM}}= 800\text{V}$, $T_j=125^\circ\text{C}$		0.5	mA
I_{DRM}	Repetitive peak off-state current	$V_{\text{DRM}}= 800\text{V}$, $T_j=125^\circ\text{C}$		0.5	mA
V_{TM}	On-state voltage	$I_{\text{TM}}= 16\text{A}$		1.6	V
I_{GT}	Gate-trigger current	$V_D=12\text{V}$; $I_T=0.1\text{A}$		0.2	mA
V_{GT}	Gate-trigger voltage	$V_D=12\text{V}$; $I_T=0.1\text{A}$		1.0	V
I_{H}	Holding current	$I_T=0.5\text{A}$		30	mA
I_{L}	Latching current	$I_G=1.2I_{\text{GT}}$		60	mA
dv/dt	Critical rate of rise of off-state voltage	$V_D=2/3V_{\text{DRM}}$ $T_j=125^\circ\text{C}$	50		V/us
$R_{\text{th(j-c)}}$	Thermal resistance junction to mounting base			2	$^\circ\text{C/W}$



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