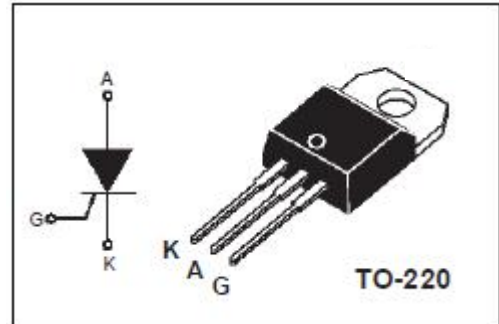


isc Thyristors

S8020L

DESCRIPTION

- With TO-220 packaging
- Electrically-isolated package
- High surge capability
- Glass passivated junctions and center gate fire for greater parameter uniformity and stability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Switching applications

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
$I_{\text{T(RMS)}}$	RMS on-state current		20	A
I_{TSM}	Surge non-repetitive on-state current (1/2 cycle,sine wave; $T_c=25^{\circ}\text{C}$)	50HZ 60HZ	255 300	A
$P_{\text{G(AV)}}$	Average gate power dissipation	$T_p=8.3\text{ms}$	0.6	W
T_j	Operating junction temperature		-40~125	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-40~150	$^{\circ}\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{\text{RM}}=V_{\text{RRM}}$ $V_{\text{DM}}=V_{\text{DRM}}$	$T_j=25^{\circ}\text{C}$		0.02	mA
I_{DRM}	Repetitive peak off-state current		$T_j=100^{\circ}\text{C}$		1.0	
			$T_j=125^{\circ}\text{C}$		2.0	
V_{TM}	On-state voltage	$I_{\text{TM}}=20\text{A}$			1.6	V
I_{GT}	Gate-trigger current	$V_D=12\text{V}; R_L=60\Omega$			30	mA
V_{GT}	Gate-trigger voltage	$V_D=12\text{V}; R_L=60\Omega$			1.5	V
$R_{\text{th(j-c)}}$	Thermal resistance	Junction to case			2.4	$^{\circ}\text{C}/\text{W}$

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