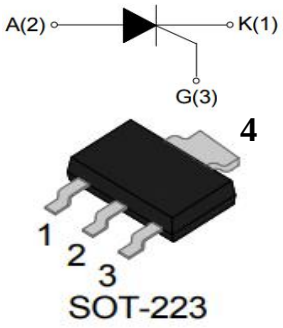


PIN	DESCRIPTION
1	cathode
2	anode
3	gate
tab	anode

DESCRIPTION

- With SOT-223 packaging
- 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℃)

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage	600	V
V_{RRM}	Repetitive peak off-state voltage	600	V
$I_{T(AV)}$	Average on-state current	0.63	A
$I_{T(RMS)}$	RMS on-state current	1	A
$P_{G(AV)}$	Average gate power	0.1	W
I_{TSM}	Non-repetitive peak on-state current	8	A
T_j	Operating junction temperature	-40~110	℃
T_{stg}	Storage temperature	-40~150	℃

ELECTRICAL CHARACTERISTICS (T_C=25℃ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{RRM}	Repetitive peak off-state voltage	V_{RRM}=600V		5	μA
	Repetitive peak reverse voltage	V_{RRM}=600V;T_j=110℃		100	
I_{DRM}	Repetitive peak reverse current	V_{RRM}=600V		5	μA
	Repetitive peak off-state current	V_{DRM}=600V;T_j=110℃		100	
I_{GT}	Gate trigger current	V_D= 12V; I_T= 10mA		120	μA
V_{TM}	On-state voltage	I_T=2A		1.5	V
I_H	Holding current	I_{GT}=0.5mA ,V_D=12V		5	mA
V_{GT}	Gate trigger voltage	V_D= 12V; I_T= 10mA		0.8	V

FIG.1 *Maximum on-state dissipation, P_{tot}, versus average on-state current, $I_{T(AV)}$, where a = form factor = $I_{T(RMS)}/ I_{T(AV)}$.*

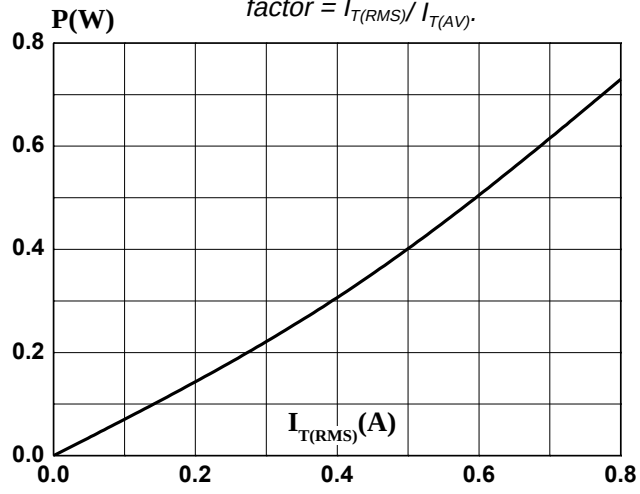


FIG.2: *Maximum permissible rms current $I_{T(RMS)}$, versus solder point temperature T_{sp}.*

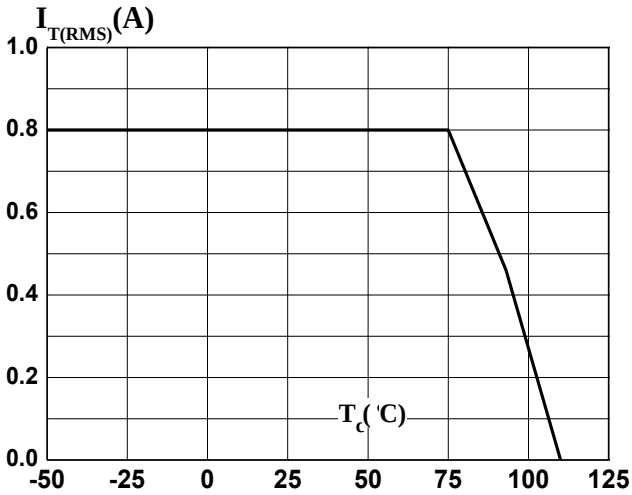


FIG.3: *Maximum permissible non-repetitive peak on-state current I_{TSM}, versus number of cycles, for sinusoidal currents, f = 50 Hz.*

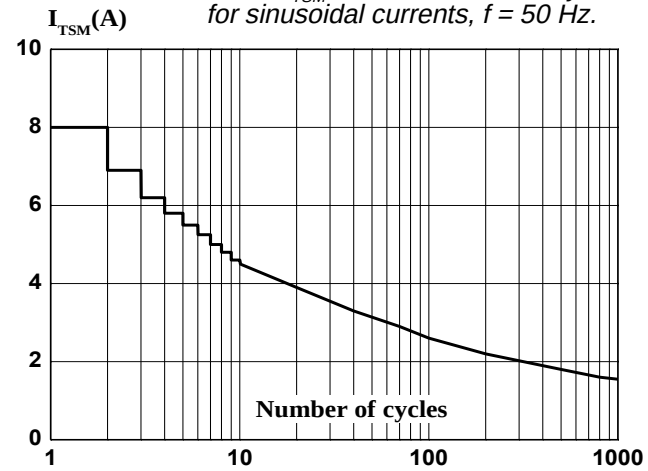


FIG.4:*Typical and maximum on-state characteristic.*

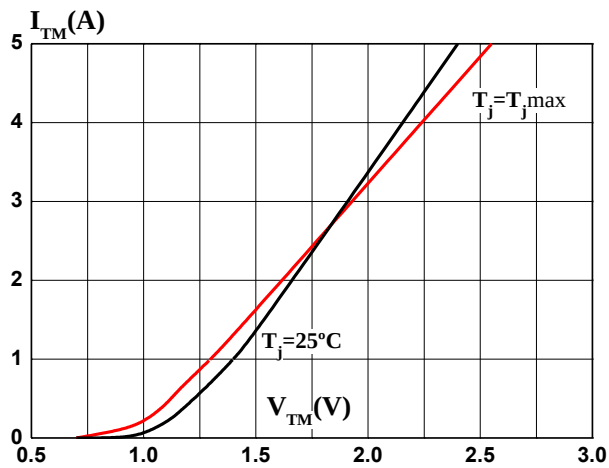


FIG.5: *Maximum permissible non-repetitive peak on-state current I_{TSM}, versus pulse width t_p, for sinusoidal currents, $t_p \leq 10ms$.*

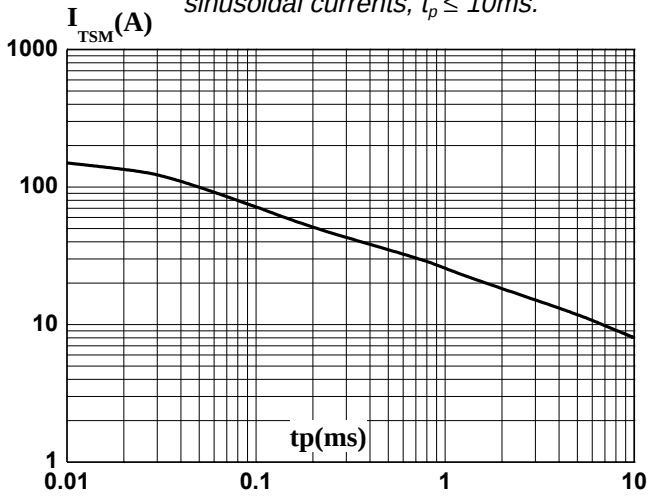
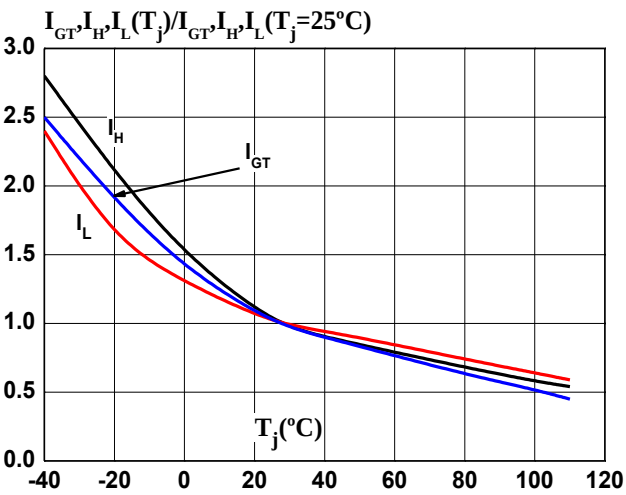


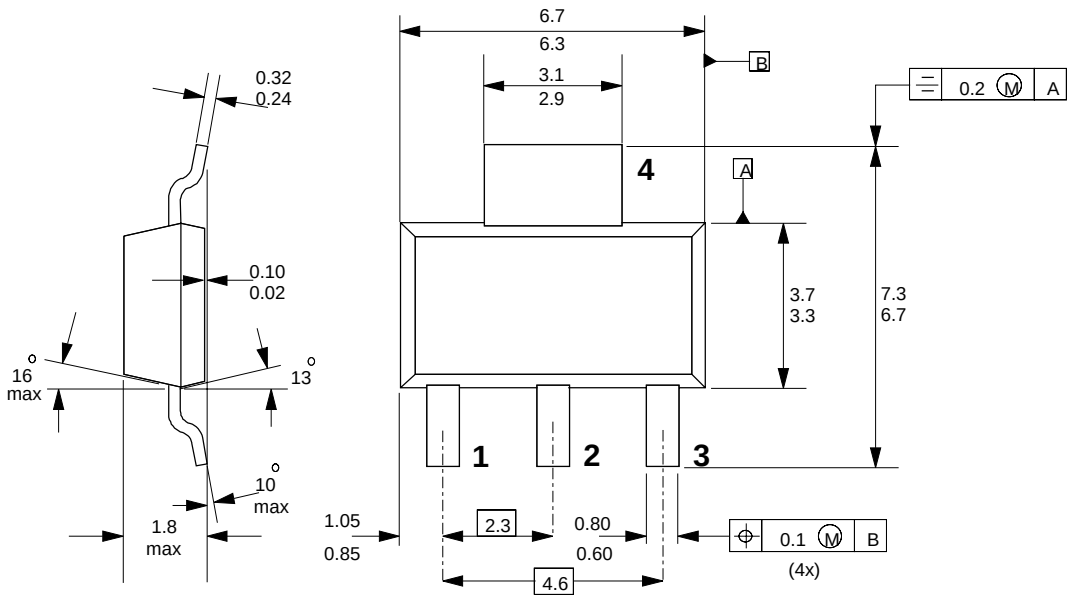
FIG.6 *Normalised gate trigger current, holding current , latching current,versus junction temperature*



MECHANICAL DATA

Dimensions in mm

Net Mass: 0.11 g



SOT223 surface mounting package.