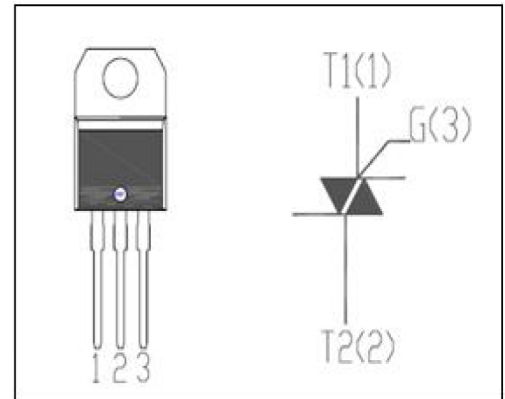


### DESCRIPTION

- With TO-3PN packaging
- Operating in 4 quadrants
- High voltage capability; high current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Applications subject to high temperature
- Heating controls; high power motor control
- High power switching



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

SYMBOL	PARAMETER	MAX	UNIT
$V_{\text{DRM}}$	Repetitive peak off-state voltage	800	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage	800	V
$I_{\text{T(RSM)}}$	RSM average on-state current $T_c=90^{\circ}\text{C}$	25	A
$I_{\text{TSM}}$	Surge non-repetitive on-state current	250 260	A
$P_{\text{G(AV)}}$	Average gate power dissipation ( over any 20 ms period ) @ $T_c=125^{\circ}\text{C}$	1	W
$T_j$	Operating junction temperature	-40~125	$^{\circ}\text{C}$
$T_{\text{stg}}$	Storage temperature	-40~150	$^{\circ}\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$I_{\text{RRM}}$	Repetitive peak reverse current	$V_R=V_{\text{RRM}}$ Rated; $T_j=25^{\circ}\text{C}$ $V_D=V_{\text{DRM}}$ Rated; $T_j=125^{\circ}\text{C}$		5	$\mu\text{A}$
$I_{\text{DRM}}$	Repetitive peak off-state current			3	mA
$V_{\text{TM}}$	On-state voltage	$I_T=35\text{A}; t_p=380\ \mu\text{s}$		1.55	V
$I_{\text{GT}}$	Gate-trigger current	$V_D=12\text{V}; R_L=33\Omega;$	I	50	mA
			II	50	
			III	50	
			IV	100	
$V_{\text{GT}}$	Gate-trigger voltage	$V_D=12\text{V}; R_L=33\Omega;$		1.3	V
$R_{\text{th(j-c)}}$	Junction to case			1.1	$^{\circ}\text{C/W}$