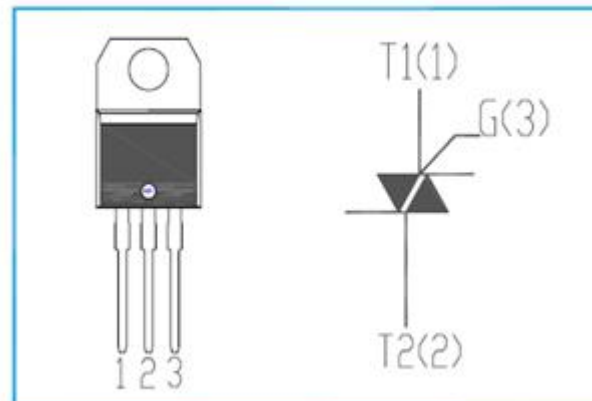


isc Triacs

BT137-500E

FEATURES

- With TO-220 package
- Glass passivated triacs in a plastic envelope, for use in general purpose bidirectional switching and phase control applications, which are intended to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.
- 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	500	V
V_{RRM}	Repetitive peak off-state voltage	500	V
$I_{\text{T(RMS)}}$	RMS on-state current (full sine wave)	8	A
I_{TSM}	Non-repetitive peak on-state current	65	A
P_{GM}	Peak gate power dissipation	5	W
$P_{\text{G(AV)}}$	Average gate power dissipation	0.5	W
T_j	Operating junction temperature	110	$^\circ\text{C}$
T_{stg}	Storage temperature	-45~150	$^\circ\text{C}$

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

SYMBOL	PARAMETER		CONDITIONS	MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current		$V_R=V_{\text{RRM}}$, $V_R=V_{\text{RRM}}$, $T_j=110^\circ\text{C}$		0.02 0.5	mA
I_{DRM}	Repetitive peak off-state current		$V_D=V_{\text{DRM}}$, $V_D=V_{\text{DRM}}$, $T_j=110^\circ\text{C}$		0.02 0.5	mA
I_{GT}	Gate trigger current	I	$V_D=12\text{V}$; $I_T=0.1\text{A}$, $R_L=30\ \Omega$		10	mA
		II			10	
		III			10	
		IV			25	
V_{TM}	On-state voltage		$I_T=10\text{A}$		1.65	V
I_{H}	Holding current		$I_{\text{GT}}=0.1\text{A}$, $V_D=12\text{V}$		25	mA
V_{GT}	Gate trigger voltage		$V_D=12\text{V}$; $R_L=30\ \Omega$ all quadrant		1.5	V