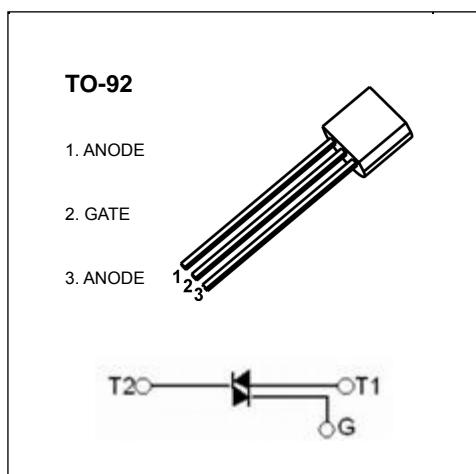


## TO-92 Plastic-Encapsulate Thyristors

### BT131 TRIAC

#### MAIN FEATURES

Symbol	value	unit
$I_{T(RMS)}$	1.2	A
$V_{DRM}/V_{RRM}$	600	V
$I_{TSM}$	8	A



#### DESCRIPTION

Logic level sensitive gate triac intended to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.

#### FEATURES

- Blocking voltage to 400 V (MAC97A6)
- RMS on-state current to 0.6 A
- General purpose bidirectional switching

#### APPLICATIONS

- General purpose bidirectional switching
- Phase control applications
- Solid state relays

#### Limiting values

Symbol	Parameter	Conditions	Value	Unit
$V_{DRM}/V_{RRM}$	repetitive peak off-state voltage	$T_j = 25 \text{ to } 125^\circ\text{C}$	600	V
$I_{GM}$	gate current(peak value)	$t = 2\mu\text{s} \text{ max}$	1.2	A
$V_{GM}$	gate voltage(peak value)	$t = 2\mu\text{s} \text{ max}$	5	V
$P_{GM}$	gate power(peak value)	$t = 2\mu\text{s} \text{ max}$	5	W
$T_j$	Junction Temperature	-	-40 ~ 125	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-	-40 ~ 150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Rated repetitive peak off-state/reverse voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	$I_D=10\mu\text{A}$	600		V
Rated repetitive peak off-state current	$I_{\text{DRM}}$	$V_D=V_{\text{DRM}}$		10	$\mu\text{A}$
On-state voltage	$V_{\text{TM}}$	$I_T=1\text{A}, I_G=50\text{mA}$		1.9	V
Gate trigger current	I	$I_{\text{GT}}$	$T_2(+), G(+)$ $T_2(+), G(-)$ $T_2(-), G(-)$ $T_2(-), G(+)$	$V_D=12\text{V}$ $R_L=100\Omega$	5 mA
	II				5 mA
	III				5 mA
	IV				- mA
Gate trigger voltage	I	$V_{\text{GT}}$	$T_2(+), G(+)$ $T_2(+), G(-)$ $T_2(-), G(-)$ $T_2(-), G(+)$	$V_D=12\text{V}$ $R_L=100\Omega$	1.5 V
	II				1.5 V
	III				1.5 V
	IV				- V
Holding current	$I_H$		$I_T=600\text{mA}, I_G=20\text{mA}$		10 mA