

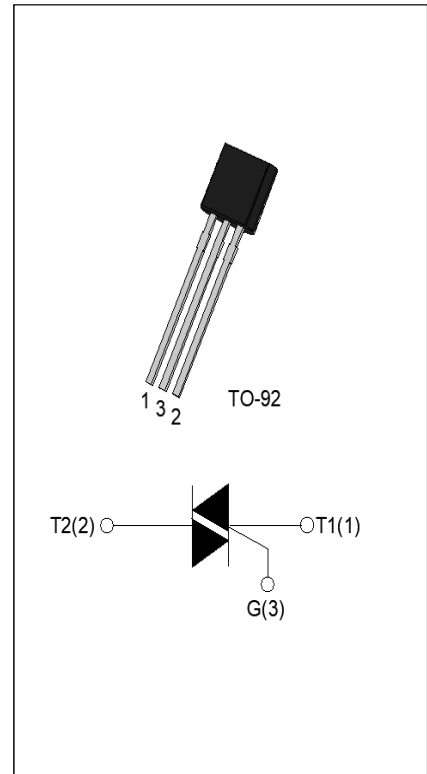
BT131-600E
MAIN FEATURES 4Q TRIAC

Symbol	Value	Unit
$I_{T(RMS)}$	1	A
V_{DRM}/V_{RRM}	600	V
$I_{GT1/2/3}$	10/10/10/25	mA

DESCRIPTION:

The BT131-600E triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers.

Package TO-92 is RoHS compliant.


ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	°C
Operating junction temperature range	T_j	-40-125	°C
Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$)	V_{DRM}	600	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	600	V
RMS on-state current ($T_c \leq 90^\circ\text{C}$)	$I_{T(RMS)}$	1	A
Non repetitive surge peak on-state current (full cycle , $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	12	A
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	0.72	A^2s
Critical rate of rise of on-state current ($T_j=125^\circ\text{C}$)	di/dt	50	$\text{A}/\mu\text{s}$
Peak gate current ($t_p=20\mu\text{s}$, $T_j=125^\circ\text{C}$)	I_{GM}	1	A
Average gate power dissipation ($T_j=125^\circ\text{C}$)	$P_{G(AV)}$	0.2	W

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

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12\text{V}$ $R_L=100\Omega$	I - II - III	MAX.	10	mA
		IV		25	
V_{GT}		ALL	MAX.	1.3	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125^\circ\text{C}$ $R_L=100\Omega$	ALL	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	I - III - IV	MAX.	10	mA
		II		30	
I_H	$I_T=500\text{mA}$		MAX.	20	mA
dV/dt	$V_D=2/3V_{DRM}$ $T_j=125^\circ\text{C}$		MIN.	500	V/ μs
dV/dt	$T_j=125^\circ\text{C}$		MIN.	10	V/ μs

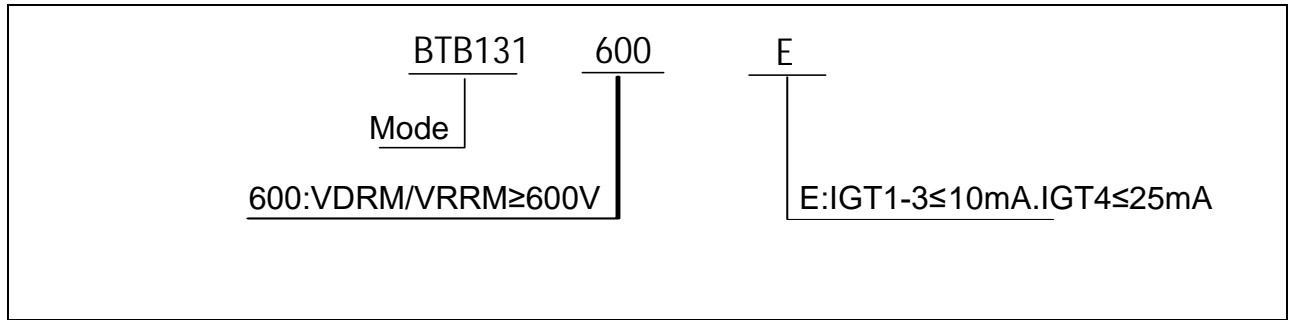
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=32\text{A}$	$T_j=25^\circ\text{C}$	1.40	V
V_{TO}	Threshold voltage	$T_j=125^\circ\text{C}$	0.94	V
R_D	Dynamic resistance	$T_j=125^\circ\text{C}$	36.8	m Ω
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25^\circ\text{C}$	5	μA
I_{RRM}		$T_j=125^\circ\text{C}$	1	mA

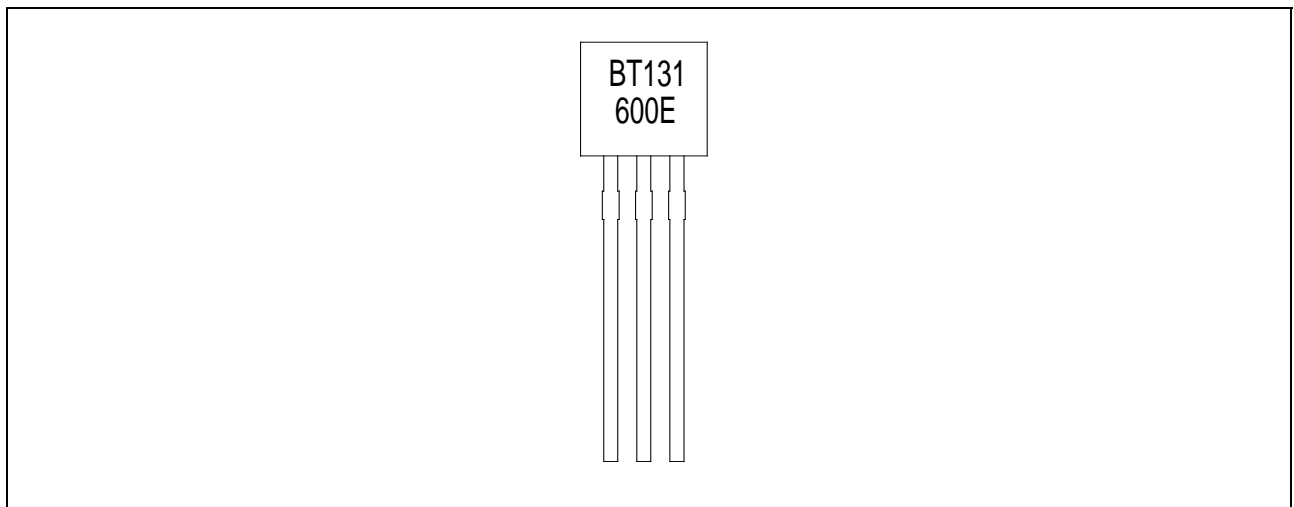
THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	11.3	$^\circ\text{C}/\text{W}$

ORDERING INFORMATION



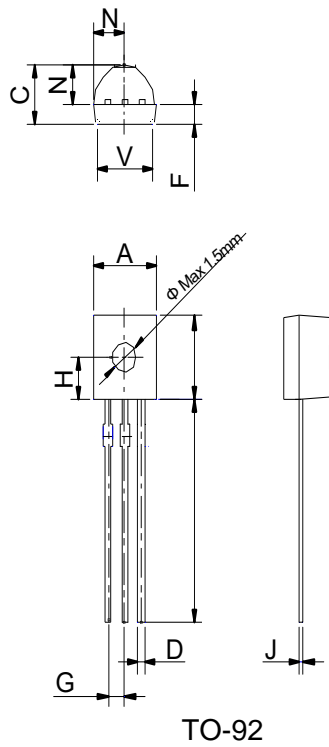
MARKING



ORDERING INFORMATION

Order code	Voltage V _{DRM} /V _{R_{RRM}} (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		I -II-III	IV			
BT131-600E	600	10	25	TO-92	/	/

PACKAGE MECHANICAL DATA



Ref.	Dimensions		
	Millimeters		
	Min.	Typ.	Max.
A	4.43	4.58	4.83
B	4.38	4.58	4.78
C	/	/	3.86
D	0.45	0.46	0.47
F	8.97	9.17	9.37
G	9.96	10.16	10.36
H	6.48	6.68	6.88
J	2.44	2.54	2.64
K	28.65	28.95	29.25
N	1.10	1.30	1.50
P	3.15	3.30	3.45
V	3.15	3.30	3.45

DELIVERY MODE

PACKAGE	OUTLINE	TUBE (PCS)
BT131	/	/

FIG.1 Maximum power dissipation versus RMS on-state current

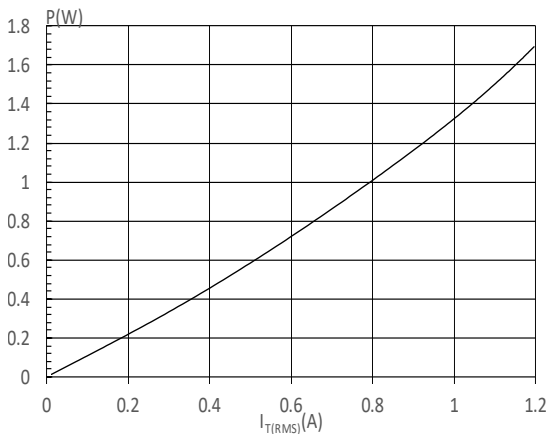


FIG.2: RMS on-state current versus case temperature

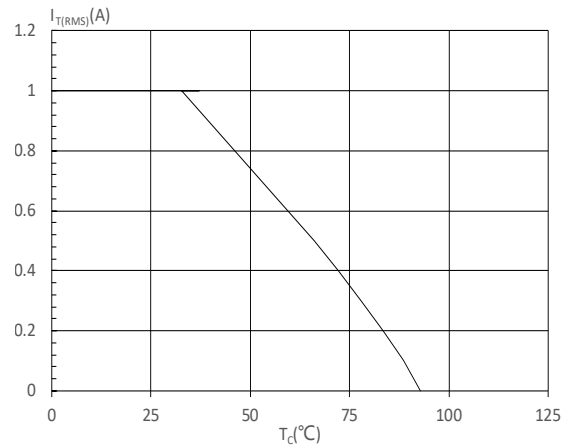


FIG.3: Surge peak on-state current versus number of cycles

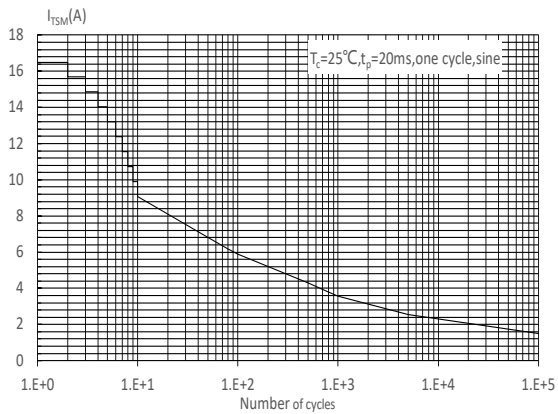


FIG.4: On-state characteristics

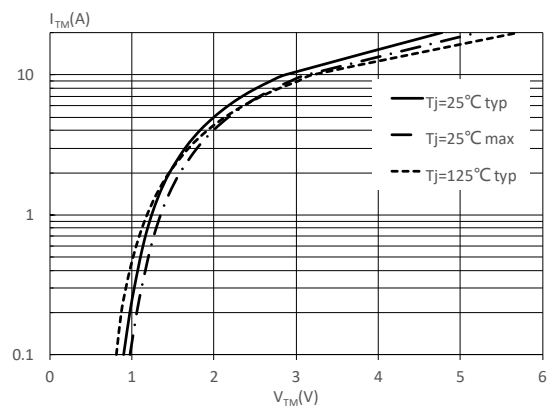


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p and value of I^2t (I - II - III: $di/dt < 50A/\mu s$; IV: $di/dt < 30A/\mu s$)

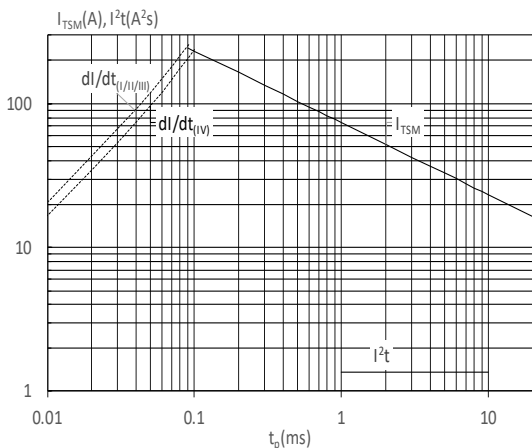
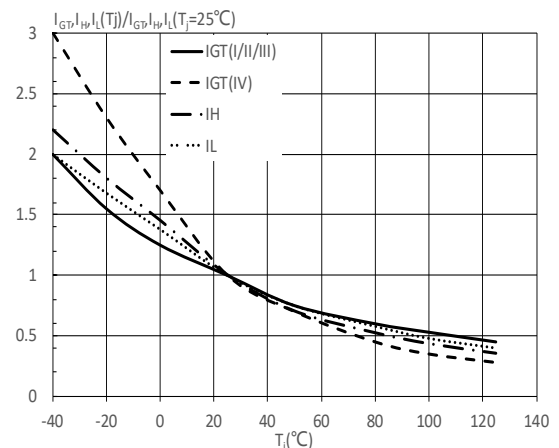


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature



单击下面可查看定价，库存，交付和生命周期等信息

[>>ZG\(中鑫半导体\)](#)