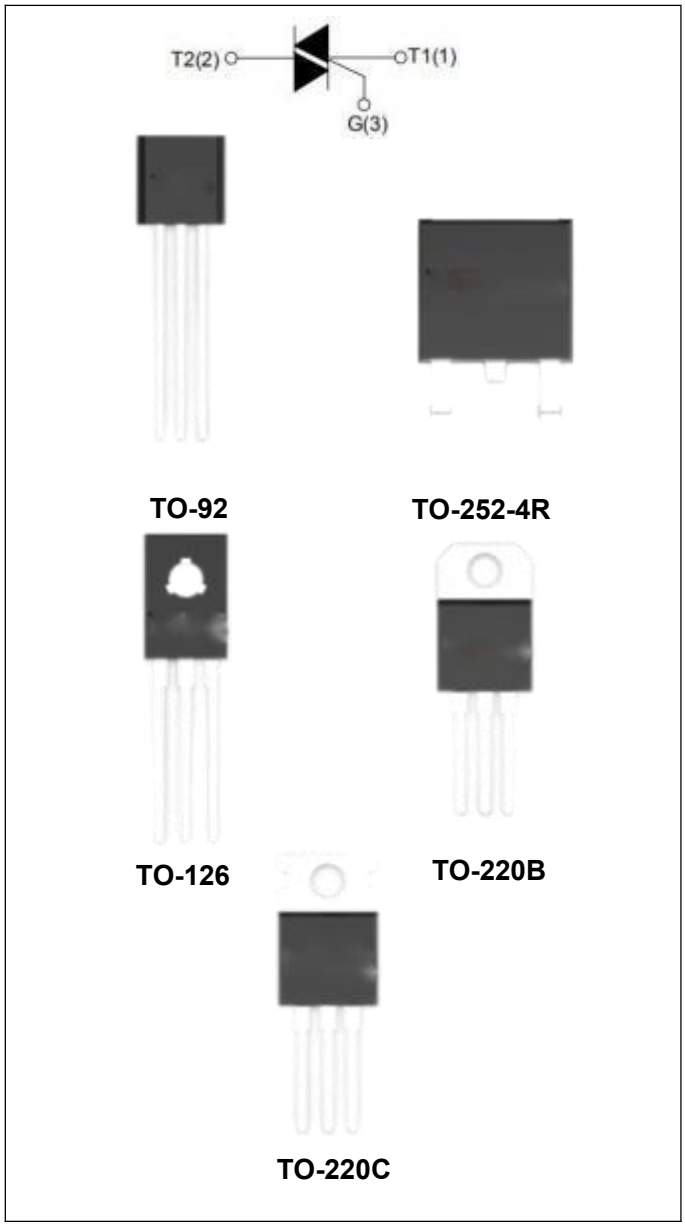
DESCRIPTION:

With low holding and latching current, BT134 Series triacs are especially recommended for use on middle and small resistance type power load.



MAIN FEATURES:

symbol	value	unit
$I_{T(RMS)}$	4	A
V_{DRM}/V_{RRM}	600/800	V
V_{TM}	≤1.7	V

ABSOLUTE MAXIMUM RATINGS:

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40~150	℃
Operating junction temperature range	T_j	-40~125	℃
Repetitive peak off-state voltage (T_j=25℃)	V_{DRM}	600/800	V
Repetitive peak reverse voltage (T_j=25℃)	V_{RRM}	600/800	V
RMS on-state current	$I_{T(RMS)}$	4	A

Non repetitive surge peak on-state current (full cycle, F=50Hz)		I_{TSM}	25	A
I^2t value for fusing (t_p=10ms)		I^2t	3.1	A^2s
Critical rate of rise of on-state current (I_G=2×I_{GT})	dI/dt	I - II-III	50	A/μs
		IV	10	
Peak gate current		I_{GM}	2	A
Average gate power dissipation		$P_{G(AV)}$	0.5	W
Peak gate power		P_{GM}	5	W

ELECTRICAL CHARACTERISTICS (T_j=25℃ unless otherwise specified)

Parameter	Test Condition	Quadrant		Value			Unit
				T	D	E	
I_{GT}	V_D=12V, R_L=33Ω	I - II - III	MAX	5	5	10	mA
		IV		5	10	25	
V_{GT}		I - II - III - IV		1.3			V
V_{GD}	V_D=V_{DRM}	I - II - III - IV	MIN	0.2			V
I_H	I_T=100mA		MAX	5	10	20	mA
I_L	I_G=1.2I_{GT}	I - III - IV	MAX	8	10	20	mA
		II		12	15	35	
dV/dt	V_D=0.66×V_{DRM} T_j=125℃ Gate open		MIN	10	20	50	V/μs

STATIC CHARACTERISTICS

Symbol	Test Condition			Value	Unit
V_{TM}	I_{TM}=5A t_p=380μs	T_j=25℃	MAX	1.7	V
I_{DRM} I_{RRM}	V_{DRM}= V_{RRM}	T_j=25℃	MAX	5	μA
		T_j=125℃		0.5	mA

THERMAL RESISTANCES

Symbol	Test Condition		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TO-252-4R	3.8	℃/W
		TO-220B(Non-Ins)/ TO-220C	3.2	
		TO-202-3	4.6	
		TO-126/SOT-82	4.2	
		TO-92	11.3	

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

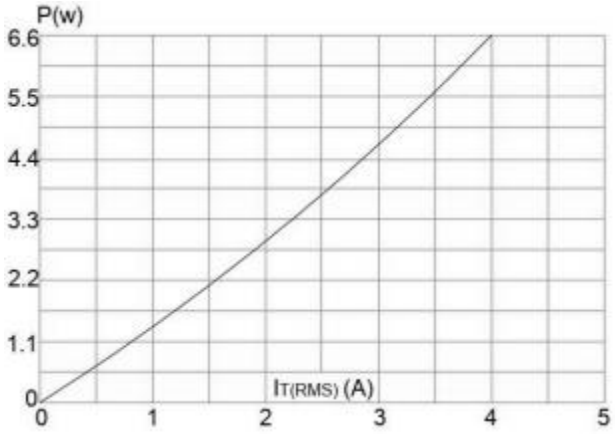


FIG.2: RMS on-state current versus case temperature

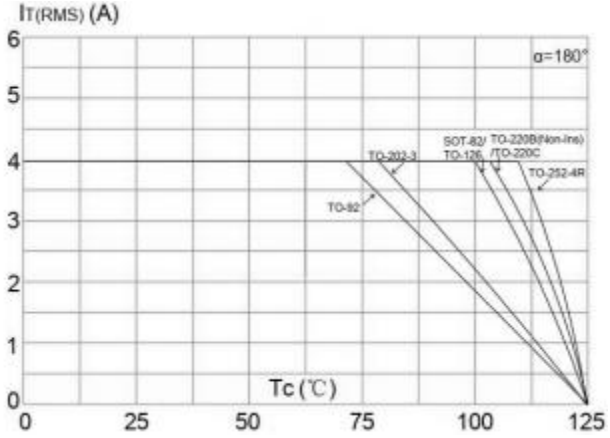


FIG.3: Surge peak on-state current versus number of cycles

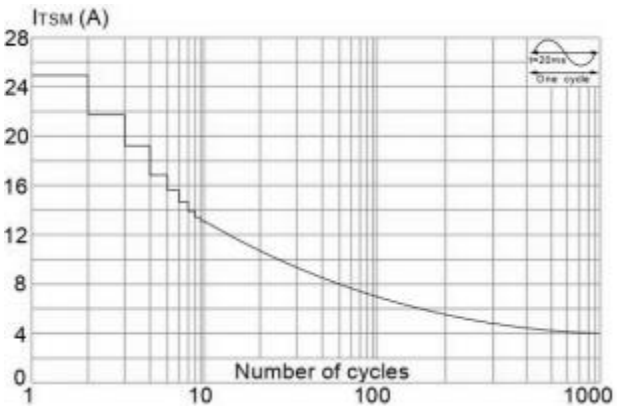


FIG.4: On-state characteristics (maximum values)

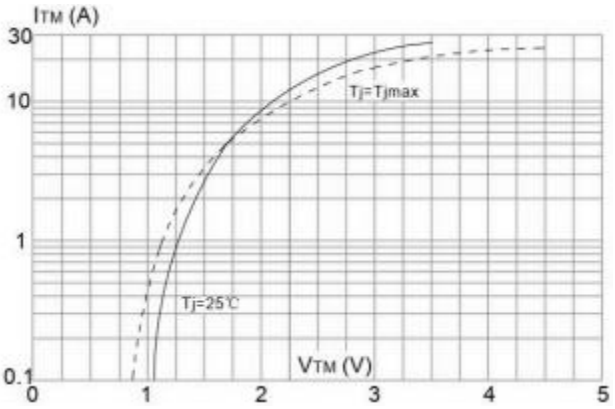


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<20ms, and corresponging value of I²t (Ⅰ - Ⅱ-Ⅲ:dI/dt < 50A/μs;Ⅳ:dI/dt < 10A/μs)

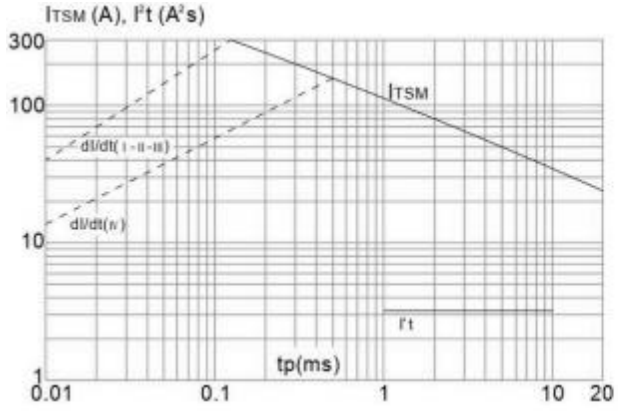


FIG.6: Relative variations of gate trigger current versus junction temperature

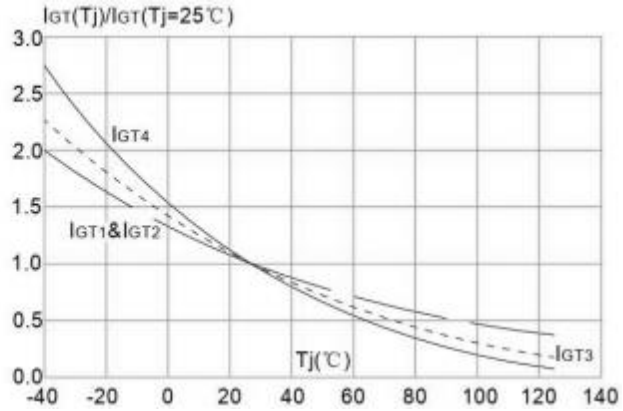


FIG.7: Relative variations of holding current versus junction temperature

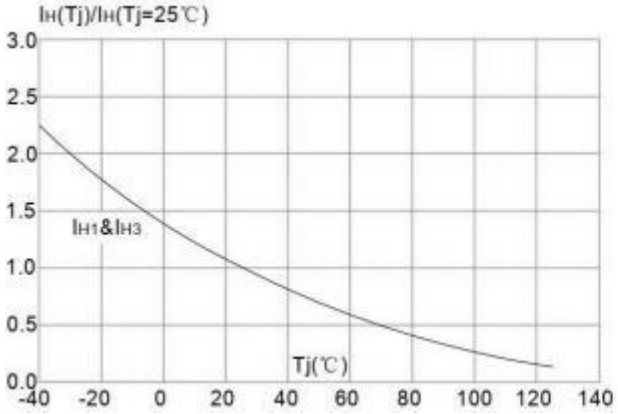


FIG.8: Relative variations of latching current versus junction temperature