

TRIAC

BT131

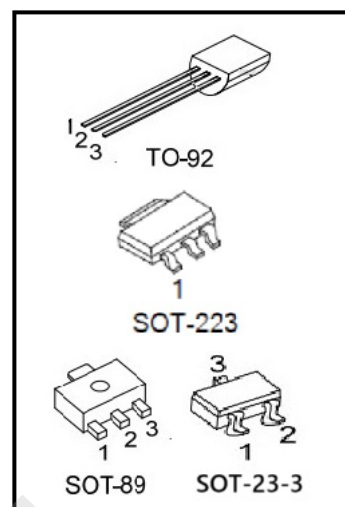
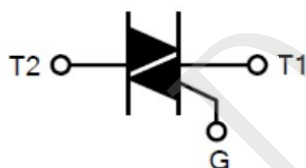
FEATURES

- Direct interfacing to logic level ICs
- Direct interfacing to low power gate drive circuits and microcontrollers
- High blocking voltage capability
- Planar passivated for voltage ruggedness and reliability
- Triggering in all four quadrants
- Very sensitive gate

APPLICATIONS

- General purpose bi-directional switching and phase control application.
- Air conditioner indoor fan control
- General purpose motor control
- General purpose switching

SYMBOL:



Package	Pin assignment		
	1	2	3
TO-92	T1	G	T2
SOT-223	T1	T2	G
SOT-89	T1	T2	G
SOT-23-3	T1	G	T2

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE		UNIT
Repetitive Peak Off-State Voltages	V_{DRM} , V_{RRM}	BT131-600	600	V
		BT131-800	800	
RMS on-State Current	$I_{T(RMS)}$	1		A
Non-Repetitive Peak On-State Current	I_{TSM}	16		A
I^2t for fusing	I^2t	1.28		A ² s
Repetitive rate of rise of on-state current after triggering	dIT/dt	I	50	A/μs
		II	50	
		III	50	
		IV	10	
Peak gate current	I_{GM}	1		A
Peak Gate Power	P_{GM}	5		W
Average Gate Power	$P_{G(AV)}$	0.1		W
Operating junction temperature	T_J	-40~+125		°C
Storage Temperature	T_{STG}	-40 ~ +150		°C

ELECTRICAL CHARACTERISTICS (T_J=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	MAX		UNITS
					T	D	
Peak Repetitive Forward or Reverse Blocking Current	I _{DRM} I _{RRM}	V _{AK} = Rated V _{DRM} or V _{RRM} ;			5		uA
Gate Trigger Current	I _{GT}	V _D =12V, R _L =100Ω	I		3	5	mA
			II		3	5	
			III		3	5	
			IV		7	10	
Gate Trigger Voltage	V _{GT}	V _D =12V, R _L =100Ω			1.5		V
Peak Forward On-State Voltage	V _{TM}	I _T =1.0A			1.4		V
Latch Current	I _L	I _{GT} =1.2I _{GT}	I		5	10	mA
			II		8	20	
			III		5	10	
			IV		5	10	
Holding Current	I _H	I _T =0.1A			5	8	mA
Gate Non-Trigger Voltage	V _{GD}	V _D =V _{DRM}		0.2			V
Critical Rate of Rise of Off-State Voltage	dV/dt	V _D =67%V _{DRM} , R _{GK} =1kΩ		5			V/μs