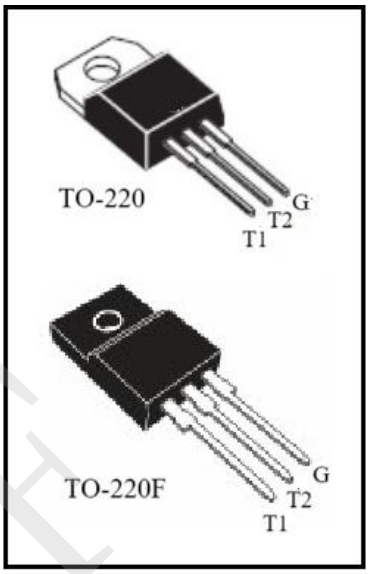
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TRIAC BT138

FEATURES

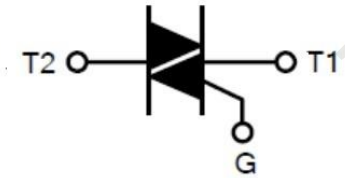
This device of sensitive TRIAC product is a glass passivated device, has a low gate trigger current, high stability in gate trigger current to variation of operating temperature and high off state voltage.



APPLICATIONS

This device is suitable for low power AC switching application,phase control application such as fan speed and temperature modulation control, lighting control and static switching relay.

SYMBOL:



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE		UNIT
Repetitive Peak Off-State Voltages	V_{DRM}, V_{RRM}	BT138-600(D/E/F)	600	V
		BT138-800(D/E/F)	800	
RMS on-State Current	$I_{T(RMS)}$	12		A
Non-Repetitive Peak On-State Current	I_{TSM}	120		A
I^2t for fusing	I^2t	78		A^2s
Repetitive rate of rise of on-state current after triggering	dIT/dt	I-IV	50	A/uS
Peak gate current	I_{GM}	4		A
Peak Gate Power	P_{GM}	5		W
Average Gate Power	$P_{G(AV)}$	1		W
Operating junction temperature	T_J	-40~+125		℃
Storage Temperature	T_{STG}	-40 ~ +150		℃

ELECTRICAL CHARACTERISTICS (TJ=25°C)

Parameter	Symbol	Test Conditions		MIN	MAX			Units
					D	E	F	
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		5	10	25	mA
			II		5	10	25	
			III		5	10	25	
			IV		10	25	50	
Gate Trigger Voltage	V_{GT}	V_D=12V, R_L=100Ω			1.3			V
Gate Non−Trigger Voltage	V_{GD}	V_D = V_{DRM}, R_L = 3.3 kΩ, T_j = 125 °C		0.2				V
Peak Forward On-State Voltage	V_{TM}	IT=15A,			1.6			V
Latch Current	I_L	I_G=1.2I_{GT}	I		10	20	40	mA
			II		20	40	80	
			III		10	20	40	
			IV		10	20	40	
Holding Current	I_H	IT=0.5A			10	15	35	mA
Critical Rate of Rise of Off-State Voltage	dV/dt	V_D=67%V_{DRM}, T_J=25°C, Gate open		40				V/μs