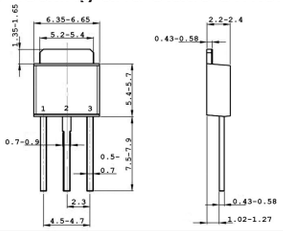
TRIAC **Plastic-Encapsulate Thyristor**

FEATURES

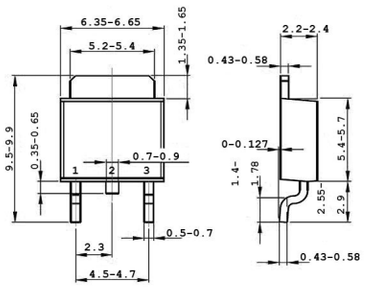
- Passivated triacs in plastic envelope, intended for use in applications requiring high bidirectional transient and blocking voltage capability and high thermal cycling performance.
- Typical applications include motor control, industrial and domestic lighting, heating and static switching.

TO-251



TO-252-2L

1. ANODE
2. ANODE
3. GATE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

MAXIMUM RATINGS

Parameters	Symbols	Conditions	Value	UNITS
Repetitive Peak Off-State Voltages	V_{DRM}		600	V
RMS On-State Current Non-Repetitive Peak On-State Current	$I_{T(RMS)}$	Full sine wave; Tmb≦107℃	4	A
I^2t for Fusing	I^2t	t=10ms	3.1	A^2s
Repetitive Rate of Rise of On-State Current after Tiggering	dI_T/dt	dI_G/dt=0.2A/μs T2+G+ T2+G- T2-G- T2-G+	 50 50 50 10	 A/μs A/μs A/μs A/μs
Peak Gate Current	I_{GM}		2	A
Peak Gate Voltage	V_{GM}		5	V
Peak Gate Power	P_{GM}		5	W
Average Gate Power	$P_{G(AV)}$	Over any 20ms period	150	W
Storage Temperature	T_{STG}		-40-150	℃
Operating Junction Temperature	T_J		125	℃

ELECTRICAL CHARACTERISTICS

Parameters		Symbol	Test conditions		MIN	TYP	MAX	UNIT
Rated Repetitive Peak Off-State Current		I_{DRM}	$V_D=V_{DRM}$				10	μA
On-State Voltage		V_{TM}	I_T=5A			1.4	1.7	V
Gate Trigger Current		I_{GT}	T_2(+), G(+)	V_D=12V		5	25	mA
			T_2(+), G(-)			8	25	mA
			T_2(-), G(-)	R_L=100Ω		11	25	mA
			T_2(-), G(+)			30	70	mA
Latching Current		I_L	T_2(+), G(+)	V_D=12V		7	20	mA
			T_2(+), G(-)			16	30	mA
			T_2(-), G(-)	R_L=100Ω		5	20	mA
			T_2(-), G(+)			7	30	mA
Holding Current		I_H	V_D=12V, I_G=0.1mA			5	15	mA
Gate Trigger Voltage		V_{GT}	V_D=12V, R_L=100Ω			0.7	1.5	V
Thermal Resistance Junction to Mounting Base		$R_{th\ j\text{-}mb}$	full cycle				3.0	k/W
			half cycle				3.7	k/W
Thermal Resistance Junction to Ambient		$R_{th\ j\text{-}a}$	In free air			60		k/W