

TRIAC

Z0107

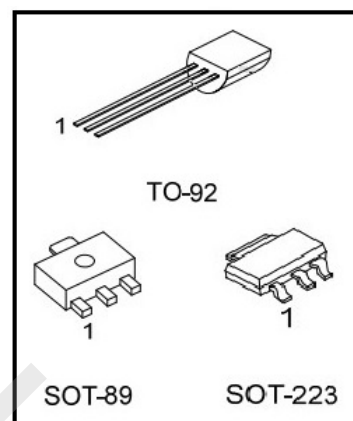
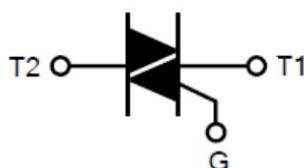
FEATURES

- $I_{GT} \leq 5\text{mA}$ (I-II-III), $I_{GT} \leq 7\text{mA}$ (IV)
- On-state rms current, $I_T(\text{RMS})$ 1 A
- Repetitive peak off-state voltage, V_{DRM}/V_{RRM} 600 or 800 V

APPLICATIONS

- General purpose low power motor control
- Home appliances
- Industrial process control
- Low power AC Fan controllers

SYMBOL:



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

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE		UNIT
Repetitive Peak Off-State Voltages	V_{DRM}, V_{RRM}	Z0107M	600	V
		Z0107N	800	
RMS on-State Current	$I_{T(\text{RMS})}$	1		A
Non-Repetitive Peak On-State Current	I_{TSM}	10		A
I^2t for fusing	I^2t	0.35		A ² s
Repetitive rate of rise of on-state current after triggering	dI_T/dt	I	50	A/ μ S
		II	50	
		III	50	
		IV	20	
Peak gate current	I_{GM}	1		A
Peak Gate Power	P_{GM}	1		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
Peak Repetitive Forward or Reverse Blocking Current	I_{DRM} I_{RRM}	$V_{\text{AK}} = \text{Rated } V_{\text{DRM}} \text{ or } V_{\text{RRM}};$			10	uA
Gate Trigger Current	I_{GT}	$V_{\text{D}}=12\text{V}$ $R_{\text{L}}=100\Omega$	I		5.0	mA
			II		5.0	
			III		5.0	
			IV		7.0	
Gate Trigger Voltage	V_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=100\Omega$			1.3	V
Peak Forward On-State Voltage	V_{TM}	$I_{\text{T}}=1.0\text{A},$			1.6	V
Latch Current	I_{L}	$I_{\text{G}}=1.2I_{\text{GT}}$	I		10	mA
			II		20	
			III		10	
			IV		10	
Holding Current	I_{H}	$I_{\text{T}}=0.1\text{A}$			10	mA
Gate Non-Trigger Voltage	V_{GD}	$V_{\text{D}}=V_{\text{DRM}}$		0.2		V
Critical Rate of Rise of Off-State Voltage	dV/dt	$V_{\text{D}}=67\%V_{\text{DRM}}, R_{\text{GK}}=1\text{k}\Omega,$		20		V/μs