

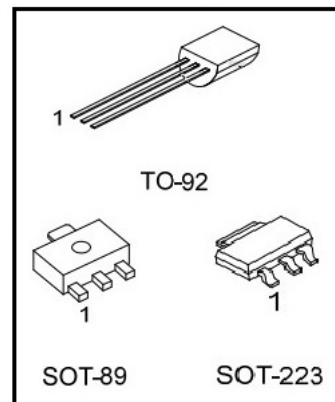
FEATURES

- Sensitive Gate Trigger Current
- Low Reverse and forward Blocking Current
- Low Holding Current
- Low On-State Voltage
- Glass-Passivated Surface for Reliability and Uniformity

APPLICATIONS

PNPN devices designed for high volume, line-powered consumer applications such as relay and lamp drivers, small motor controls, gate drivers for larger thyristors, and sensing and detection circuits.

SYMBOL



Package	Pin assignment		
	1	2	3
SOT-223	K	A	G
SOT-89	K	A	G
TO-92	K	G	A

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE		UNIT
Repetitive Peak Off-State Voltages	V_{DRM}	MCR22-6	400	V
	V_{RRM}	MCR22-8	600	
RMS on-State Current	$I_{T(RMS)}$	1.5		A
Non-Repetitive Peak On-State Current	I_{TSM}	15		A
I^2t for fusing($t = 8.3$ ms)	I^2t	0.9		A ² s
Peak gate current	I_{GM}	1.0		A
Peak Gate Power – Forward	P_{GM}	0.5		W
Peak Gate Power	$P_{G(AV)}$	0.1		W
Peak Reverse Gate Voltage	V_{RGM}	5		V
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}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=100\Omega$		200	uA
Gate Trigger Voltage	V_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=100\Omega$		0.8	V
Gate Non-Trigger Voltage	V_{GD}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=100\Omega$	0.1		
Peak Forward On-State Voltage	V_{TM}	$I_{\text{T}}=1.0\text{A}$		1.7	V
Latch Current	I_{L}	$I_{\text{G}}=1.2I_{\text{GT}}$		10	mA
Holding Current	I_{H}	$I_{\text{T}}=50\text{mA}$		5	mA
Critical Rate of Rise of Off-State Voltage	dV/dt	$V_{\text{D}}=67\%V_{\text{DRM}}, R_{\text{GK}}=1\text{k}\Omega,$	10		V/ μs