

SCR

BT169D

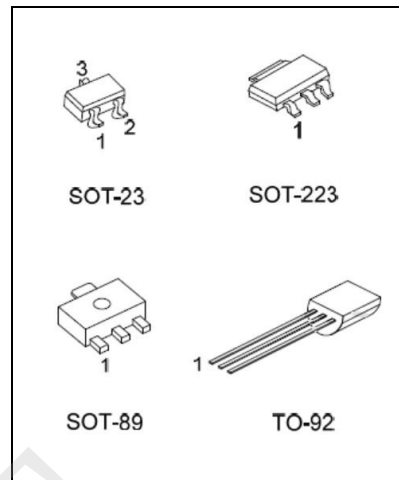
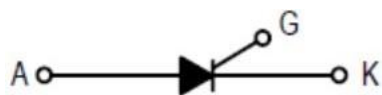
FEATURES

- Sensitive Gate Trigger Current
- Low Reverse and Forward Blocking Current
- Low Holding Current
- Glass-Passivated Surface for Reliability and Uniformity

APPLICATIONS

- Ignition circuits
- Lighting ballasts
- Protection circuits
- Switched Mode Power Supplies

SYMBOL



Package	Pin assignment		
	1	2	3
TO-92	K	G	A
SOT-23	K	G	A
SOT-223	K	A	G
SOT-89	K	A	G

ABSOLUTE MAXIMUM RATINGS

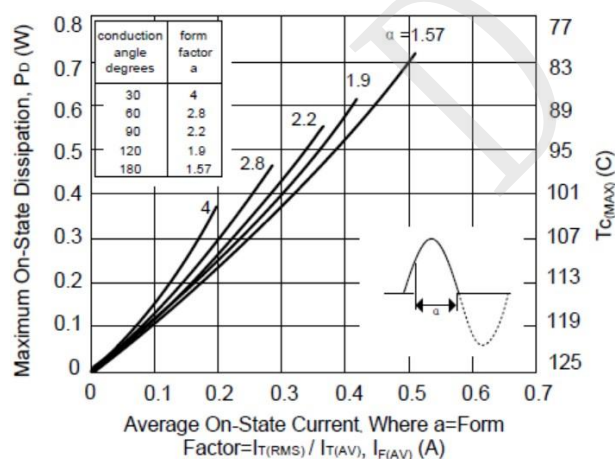
PARAMETER	SYMBOL	VALUE	UNIT
Repetitive Peak Off-State Voltages	V_{DRM} V_{RRM}	600	V
RMS on-State Current	$I_{T(RMS)}$	0.8	A
Non-Repetitive Peak On-State Current	I_{TSM}	8.0	A
Peak gate current	I_{GM}	1.0	A
Peak Gate Power	$P_{G(AV)}$	0.1	W
Peak Gate Voltage	P_{GM}	2	W
Peak Reverse Gate Voltage	V_{RGM}	5	V
Operating junction temperature	T_J	-40~+125	°C
Storage Temperature	T_{STG}	-40~+150	°C

ELECTRICAL CHARACTERISTIC CURVE (T_J=25°C)

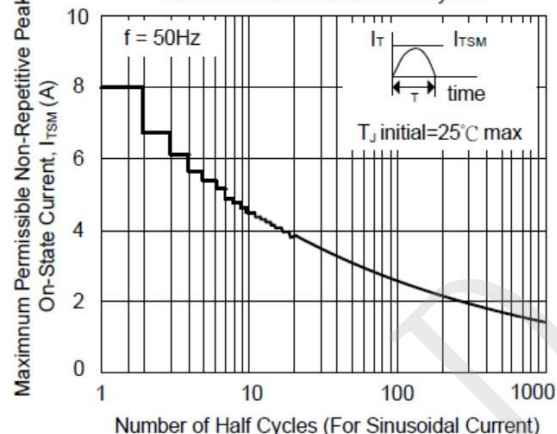
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Peak Repetitive Forward or Reverse Blocking Current	I_{DRM} I_{RRM}	V_{AK} = Rated V_{DRM} or V_{RRM} ;			100	uA
Gate Trigger Current	I_{GT}	$V_D=12V$, $R_L=100\Omega$	10		200	uA
Gate Trigger Voltage	V_{GT}	$V_D=12V$, $R_L=100\Omega$			0.8	V
Peak Forward On-State Voltage	V_{TM}	$I_T=1.0A$			1.8	V
Latch Current	I_L	$I_G=1.2I_{GT}$			6	mA
Holding Current	I_H	$I_T=50mA$			5	mA
Critical Rate of Rise of Off-State Voltage	dV/dt	$V_D=67\%V_{DRM}$, $R_{GK}=1k\Omega$,	10			V/ μs

TYPICAL CHARACTERISTICS

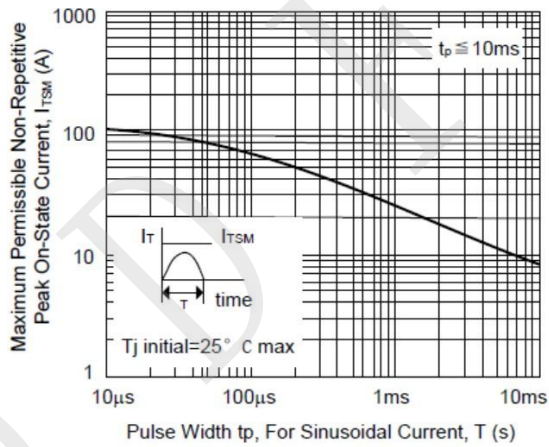
Maximum On-State Dissipation vs. Average On-State Current



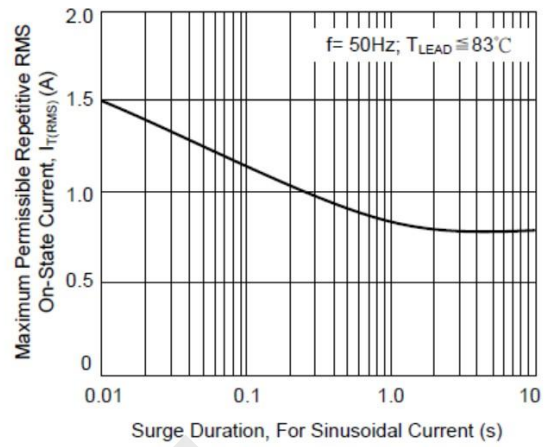
Maximum Permissible Non-Repetitive Peak On-State Current vs. Number Of Cycles



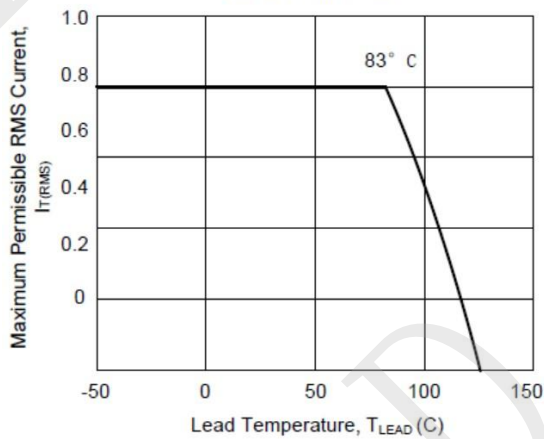
Maximum Permissible Non-Repetitive Peak On-State Current vs. Pulse Width t_p , For Sinusoidal Current



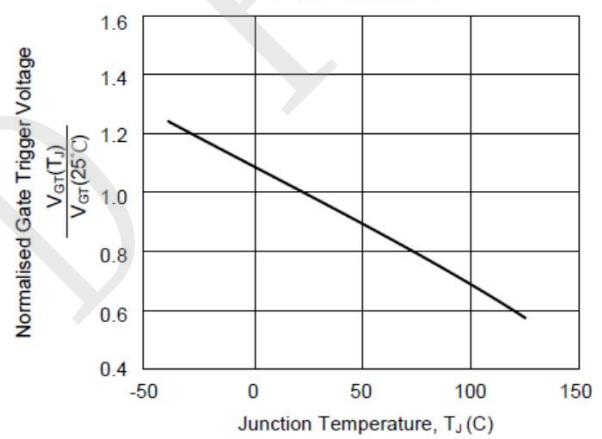
Maximum Permissible Repetitive RMS On-State Current vs. Surge Duration, For Sinusoidal Currents



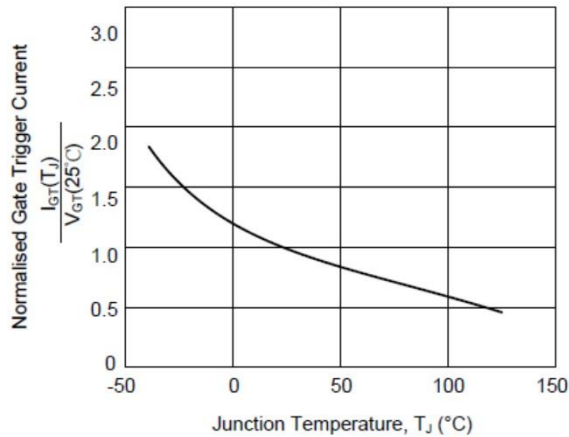
Maximum Permissible RMS Current vs. Lead Temperature



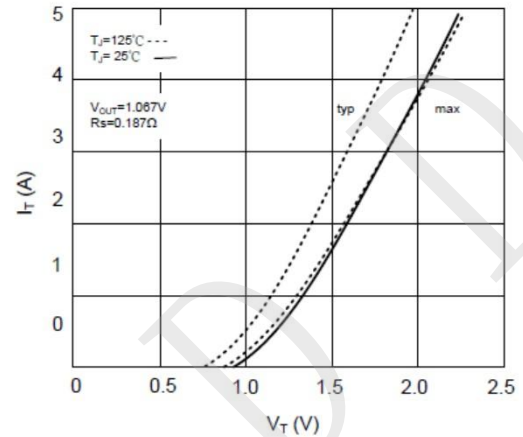
Normalised Gate Trigger Voltage vs. Junction Temperature



Normalised Gate Trigger Current vs. Junction Temperature



Typical And Maximum On-State Characteristic



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