

SM08G43

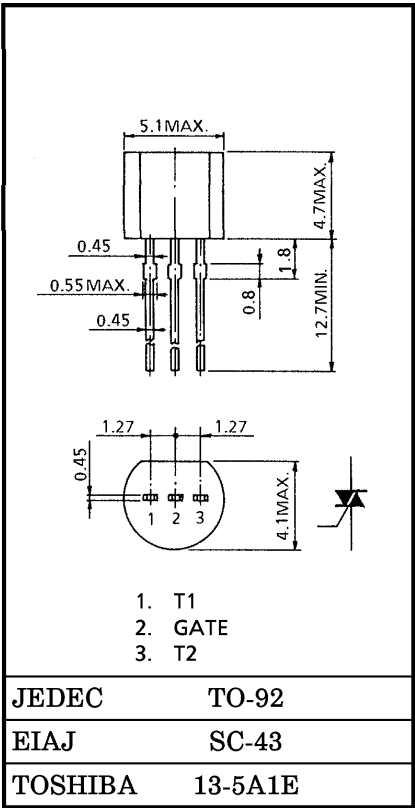
AC POWER CONTROL APPLICATIONS

Unit in mm

- Repetitive Peak Off-State Voltage : $V_{DRM}=400V$
- R.M.S On-State Current : $I_T(RMS)=0.8A$

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage	V_{DRM}	400	V
R.M.S On-State Current (Full Sine Waveform $T_c=65^{\circ}C$)	$I_T(RMS)$	0.8	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	6 (50Hz) 6.6 (60Hz)	A
I^2t Limit Value	I^2t	0.18	A^2s
Peak Gate Power Dissipation	P_{GM}	0.5	W
Average Gate Power Dissipation	$P_G(AV)$	0.05	W
Peak Gate Voltage	V_{GM}	5	V
Peak Gate Current	I_{GM}	0.3	A
Junction Temperature	T_j	$-40\sim125$	$^{\circ}C$
Storage Temperature Range	T_{stg}	$-40\sim125$	$^{\circ}C$



Weight : 0.2g

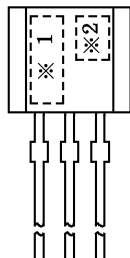
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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

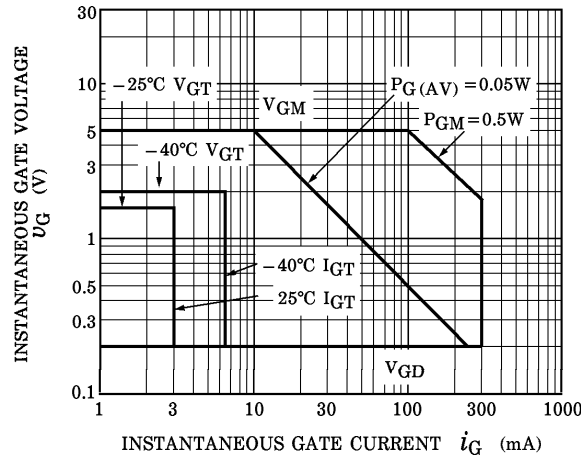
CHARACTERISTIC			SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current			I_{DRM}	V_{DRM} =Rated		—	—	10	μA
Gate Trigger Voltage	I	(1+)	V_{GT}	$V_{\text{D}}=12\text{V},$ $R_{\text{L}}=20\Omega$	T2 (+), Gate (+)	—	—	—	V
	II	(1—)			T2 (+), Gate (—)	—	—	1.5	
	III	(3—)			T2 (—), Gate (—)	—	—	1.5	
	IV	(3+)			T2 (—), Gate (+)	—	—	—	
Gate Trigger Current	I	(1+)	I_{GT}		T2 (+), Gate (+)	—	—	—	mA
	II	(1—)			T2 (+), Gate (—)	—	—	3	
	III	(3—)			T2 (—), Gate (—)	—	—	3	
	IV	(3+)			T2 (—), Gate (+)	—	—	—	
Peak On-State Voltage			V_{TM}	$I_{\text{TM}}=1.2\text{A}$		—	—	1.5	V
Gate Non-Trigger Voltage			V_{GD}	V_{D} =Rated, $T_{\text{c}}=125^{\circ}\text{C}$		0.2	—	—	V
Holding Current			I_{H}	$V_{\text{D}}=12\text{V}$, Gate Open		—	—	10	mA
Thermal Resistance			$R_{\text{th (j-c)}}$	Junction to Case		—	—	50	$^{\circ}\text{C/W}$
Thermal Resistance			$R_{\text{th (j-a)}}$	Junction to Ambient		—	—	220	$^{\circ}\text{C/W}$

MARKING

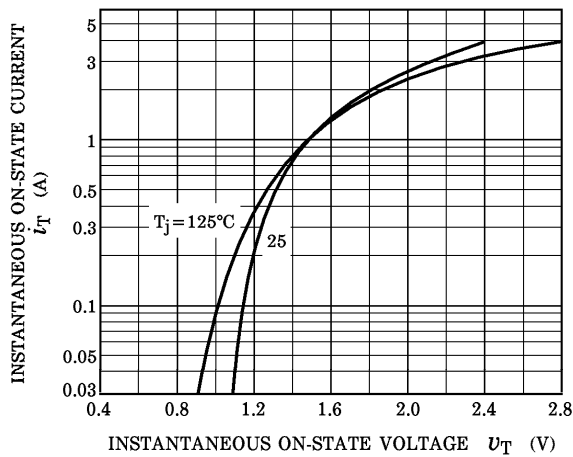


NUMBER	SYMBOL		MARK
※1	TYPE	SM08G43	M08G
※2	Lot Number Month (Starting from Alphabet A) Year (Last Decimal Digit of the Current Year)		Example 8A : January 1998 8B : February 1998 8L : December 1998

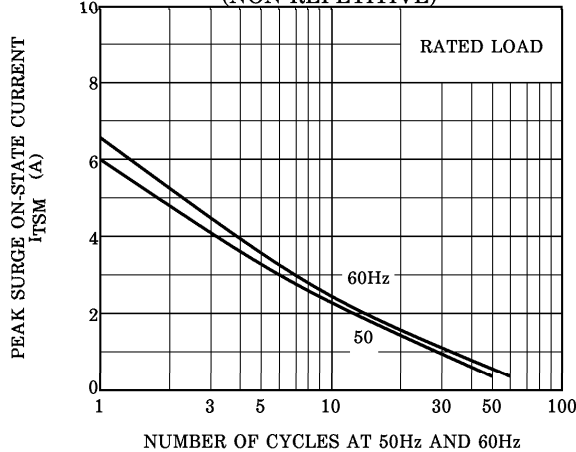
GATE TRIGGER CHARACTERISTIC



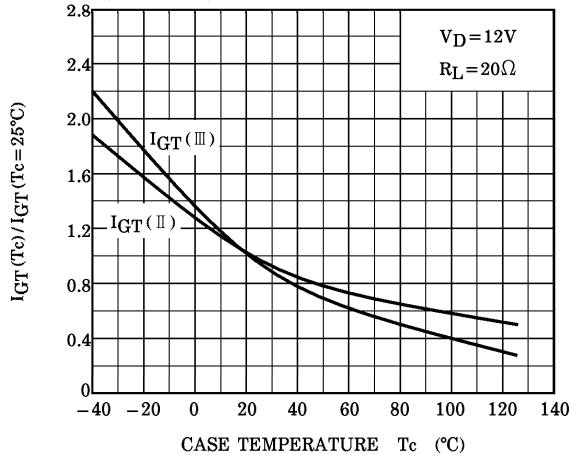
$i_T - v_T$



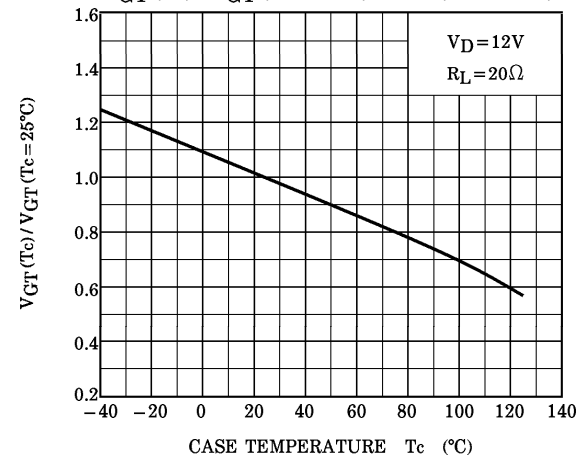
SURGE ON-STATE CURRENT (NON-REPETITIVE)



$I_{GT}(T_c) / I_{GT}(T_c = 25^\circ\text{C}) - T_c$ (TYPICAL)



$V_{GT}(T_c) / V_{GT}(T_c = 25^\circ\text{C}) - T_c$ (TYPICAL)



$I_H(T_c) / I_H(T_c = 25^\circ\text{C}) - T_c$ (TYPICAL)

