

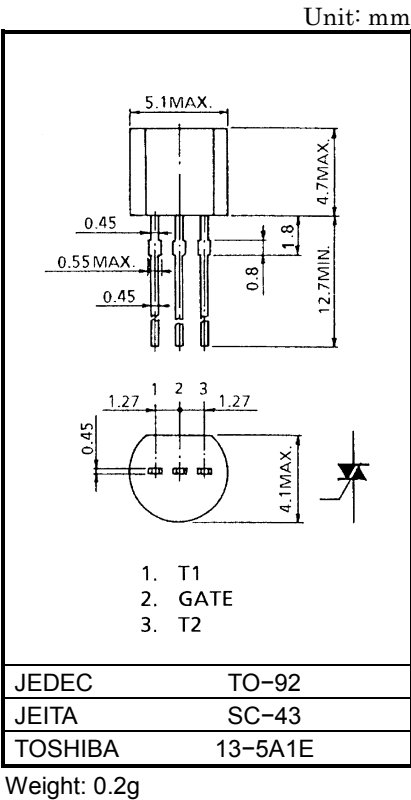
SM1L43

AC POWER CONTROL APPLICATIONS

- Repetitive Peak Off-State Voltage : $V_{DRM} = 800V$
- R.M.S. On-State Current : $I_T (RMS) = 1A$

MAXIMUM RATINGS

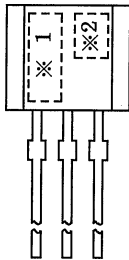
CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage	V_{DRM}	800	V
R.M.S. On-State Current (Full Sine Waveform $T_c = 74^{\circ}C$)	$I_T (RMS)$	1.0	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	8 (50Hz)	A
		8.8 (60Hz)	
I^2t Limit Value ($t = 1\sim 10ms$)	I^2t	0.32	A^2s
Peak Gate Power Dissipation	P_{GM}	1	W
Average Gate Power Dissipation	$P_G (AV)$	0.1	W
Peak Gate Voltage	V_{GM}	6	V
Peak Gate Current	I_{GM}	0.5	A
Junction Temperature	T_j	$-40\sim 125$	$^{\circ}C$
Storage Temperature Range	T_{stg}	$-40\sim 125$	$^{\circ}C$



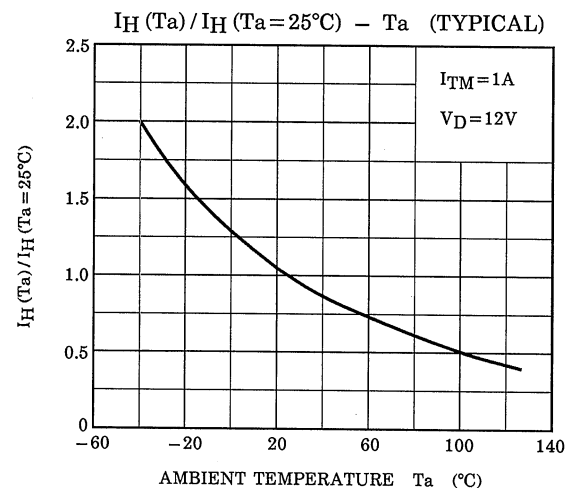
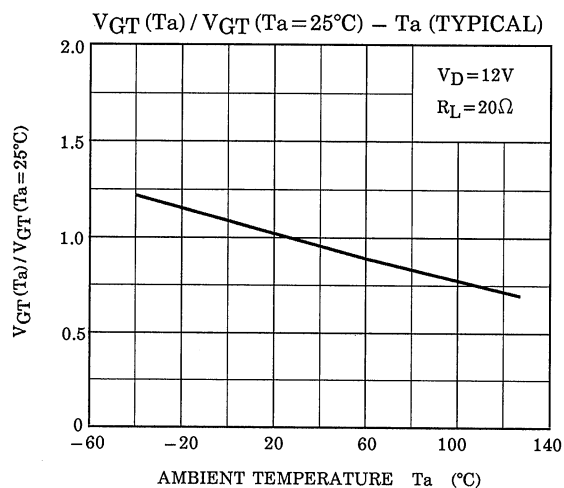
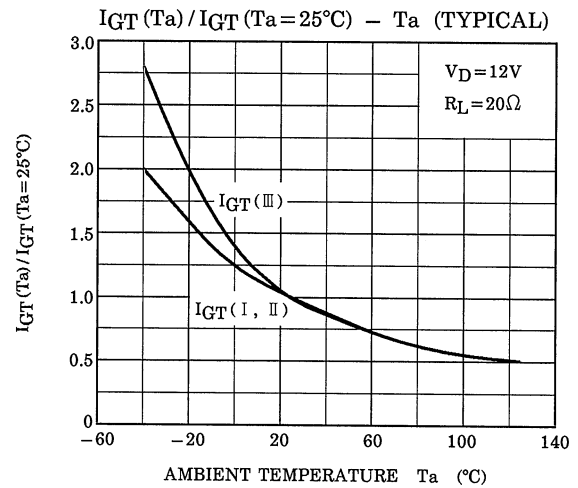
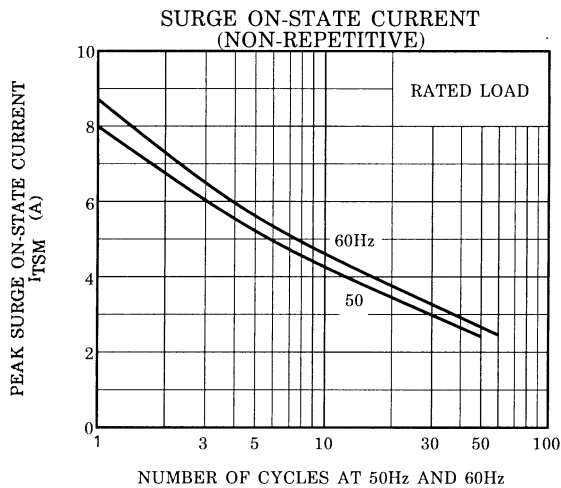
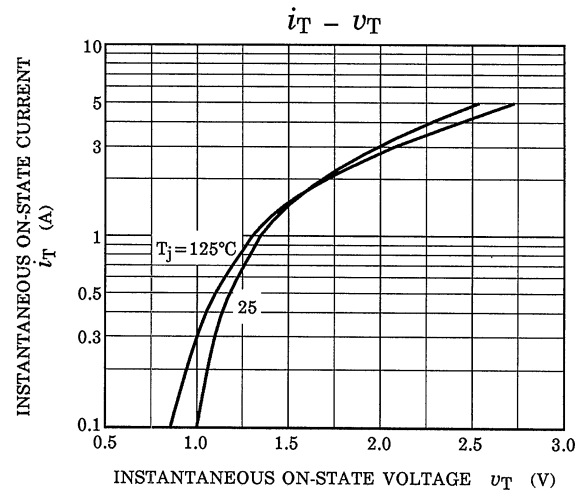
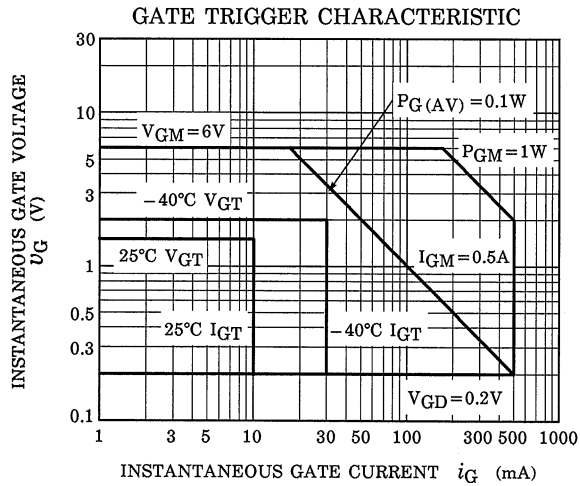
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

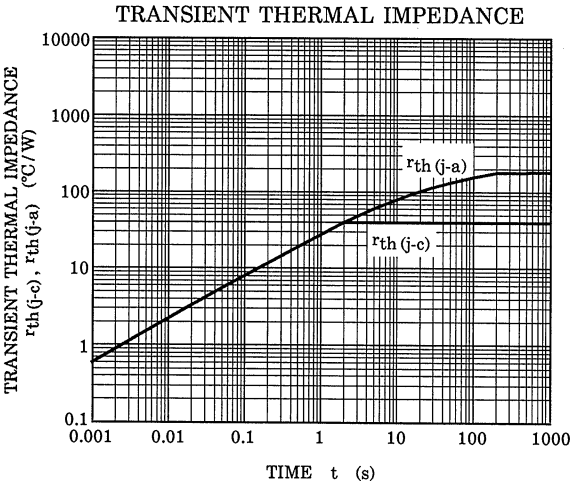
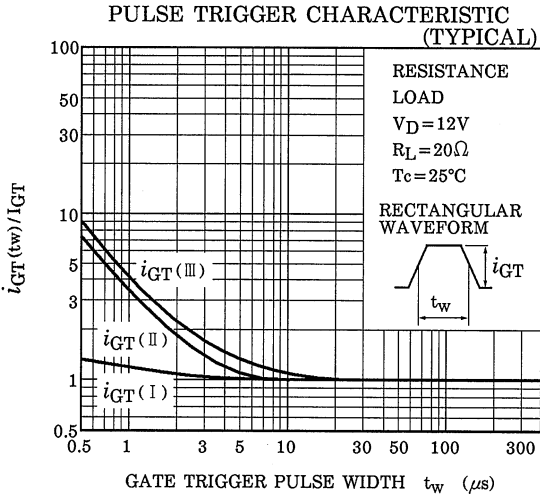
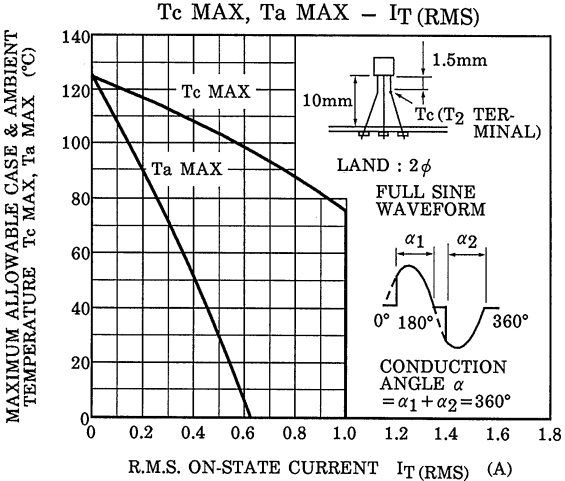
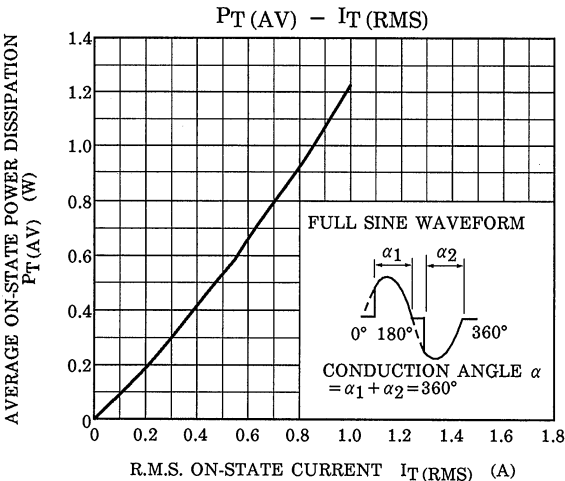
CHARACTERISTIC		SYMBOL	TEST CONDITION		MIN	TYP.	MAX	UNIT
Repetitive Peak Off-State Current		I_{DRM}	$V_{\text{DRM}} = 800\text{V}$		—	—	10	μA
Gate Trigger Voltage	I	V_{GT}	$V_{\text{D}} = 12\text{V}, R_{\text{L}} = 20\Omega$	T2 (+) , Gate (+)	—	—	1.5	V
	II			T2 (+) , Gate (-)	—	—	1.5	
	III			T2 (-) , Gate (-)	—	—	1.5	
Gate Trigger Current	I	I_{GT}	$V_{\text{D}} = 12\text{V}, R_{\text{L}} = 20\Omega$	T2 (+) , Gate (+)	—	—	10	mA
	II			T2 (+) , Gate (-)	—	—	10	
	III			T2 (-) , Gate (-)	—	—	10	
Peak On-State Voltage		V_{TM}	$I_{\text{TM}} = 1.5\text{A}$		—	—	1.5	V
Gate Non-Trigger Voltage		V_{GD}	$V_{\text{D}} = \text{Rated}, T_{\text{c}} = 125^{\circ}\text{C}$		0.2	—	—	V
Holding Current		I_{H}	$V_{\text{D}} = 12\text{V}, I_{\text{TM}} = 1\text{A}$		—	—	10	mA
Thermal Resistance		$R_{\text{th}} (\text{j-c})$	Junction to Case, AC		—	—	40	$^{\circ}\text{C} / \text{W}$
Thermal Resistance		$R_{\text{th}} (\text{j-a})$	Junction to Ambient, AC		—	—	180	$^{\circ}\text{C} / \text{W}$

MARKING



NUMBER	SYMBOL		MARK
*1	TYPE	SM1L43	M1L43
*2	Lot Number <div><div>□</div><div>□</div><div>Month (Starting from Alphabet A)</div><div>Year (Last Decimal Digit of the Current Year)</div></div>		Example 8A : January 1998 8B : February 1998 8L : December 1998





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