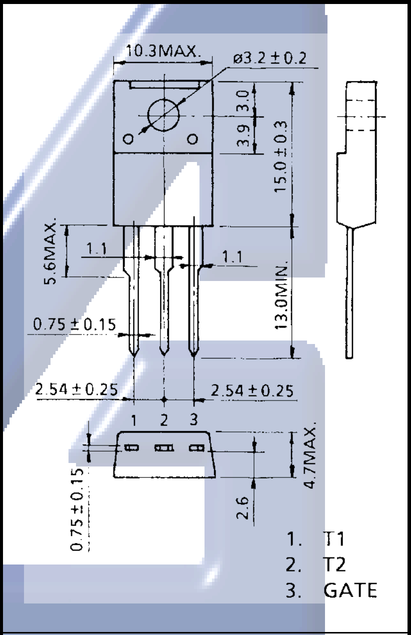
TOSHIBA BI−DIRECTIONAL TRIODE THYRISTOR SILICON PLANAR TYPE

SM10LZ47

AC POWER CONTROL APPLICATIONS

Unit: mm



JEDEC	―
JEITA	―
TOSHIBA	13−10H1A

Weight: 1.7g

- Repetitive Peak Off−State Voltage : $V_{DRM} = 800V$
- R.M.S. On−State Current : $I_{T\ (RMS)} = 10A$
- High Commutation (dv / dt)
- Isolation Voltage : $V_{ISOL} = 1500V$ AC

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off−State Voltage	V_{DRM}	800	V
R.M.S On−State Current (Full Sine Waveform)	$I_{T\ (RMS)}$	10	A
Peak One Cycle Surge On−State Current (Non−Repetitive)	I_{TSM}	100 (50Hz) 110 (60Hz)	A
I^2t Limit Value	I^2t	50	A^2s
Critical Rate of Rise of On−State Current (Note)	di / dt	50	A / μs
Peak Gate Power Dissipation	P_{GM}	5	W
Average Gate Power Dissipation	$P_{G\ (AV)}$	0.5	W
Peak Gate Voltage	V_{FGM}	10	V
Peak Gate Current	I_{GM}	2	A
Junction Temperature	T_j	−40~125	°C
Storage Temperature Range	T_{stg}	−40~125	°C
Isolation Voltage (AC, t = 1min.)	V_{ISOL}	1500	V

Note: di / dt test condition
$V_{DRM} = 0.5 \times$ Rated, $I_{TM} \leq 15A$, $t_{gw} \geq 10\mu s$,
$t_{gr} \leq 250ns$, $i_{gp} = I_{GT} \times 2.0$