

- **Description:**

Logic level sensitive gate triac intended to interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.

- **Applications**

This device is suitable for low power AC switching application, phase control application such as fan speed and temperature modulation control, lighting control and static switching relay.

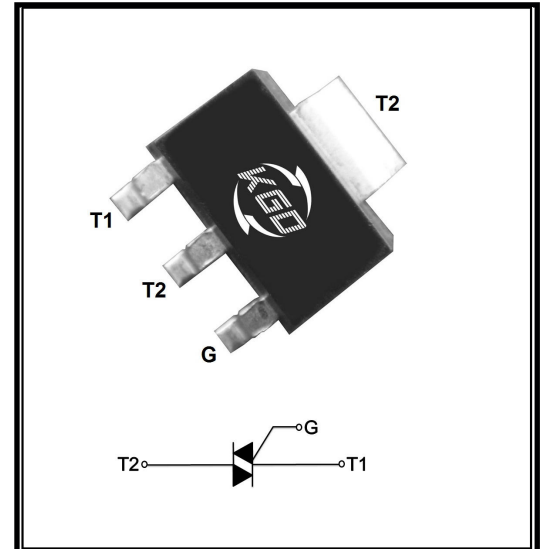
- **Features:**

Blocking voltage to 600/800V

On-state RMS current to 2.0A

Non-repetitive peak on-state current to 20A

- **Absolute Maximum Ratings**



Symbol	Parameter	Conditions	Value		Unit
			Min	Max	
$V_{DRM}$	Repetitive peak off-state voltage	$T_J=25^{\circ}C$	600	800	V
$V_{RRM}$	Repetitive peak Reverse voltage	$T_J=25^{\circ}C$	600	800	V
$I_{T(RMS)}$	RMS on-state current (full sine wave)	$T_C=110^{\circ}C$	2.0		A
$I_{TSM}$	Non-repetitive surge peak On-state current (One full cycle, sine wave, $T_C=110^{\circ}C$ )	$t_p=10ms$	20		A
		$t_p=16.7ms$	22		
$I^2t$	$I^2t$ Value for fusing	$t_p=10ms$	2.6		$A^2S$
$I_{GM}$	Peak gate current	$t_p \leq 2\mu s, T_J=80^{\circ}C$	2.0		A
$P_{G(AV)}$	Average gate power dissipation	$t_p \leq 10ms, T_J=80^{\circ}C$	0.5		W
$P_{GM}$	Peak gate power dissipation		5		W
$T_{STG}$	Storage temperature		-40	150	$^{\circ}C$
$T_J$	Junction temperature		-40	125	$^{\circ}C$

**● Electrical Characteristics**

Symbol	Conditions	Quadrant	Value		Unit
			MIN	MAX	
$I_{GT}$	$V_D=12V, R_L=33\Omega$	I - II -III	/	5	mA
		IV	/	10	
$V_{GT}$		ALL	/	1.5	V
$V_{GD}$	$V_D=V_{DRM}, R_L=3.3K\Omega, T_J=125^\circ C$	ALL	0.2	/	V
$I_H$	$I_T=200mA$		10	/	mA
dv/dt	$V_{DM}=67\%V_{DRM}$ , gate open, $T_J=125^\circ C$		/	5	V/ $\mu s$

**● Electrical Characteristics**

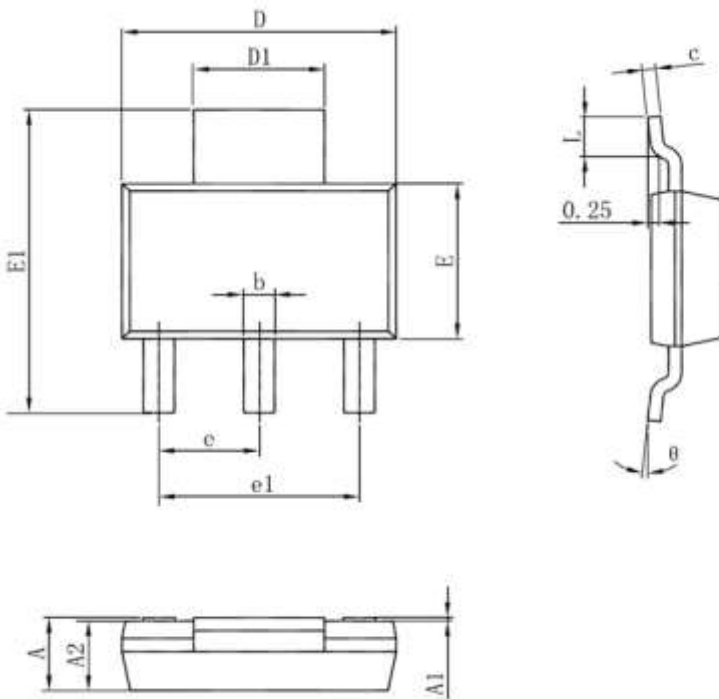
Symbol	Parameter	Numerical	Unit
$V_{TM}$	$I_T=5A, t_p=380\mu s$ $T_J=25^\circ C$	1.7	V
$I_{DRM}$	$V_D=V_{DRM}, V_R=V_{RRM}$ $T_J=25^\circ C$	10	$\mu A$
$I_{RRM}$	$T_J=125^\circ C$	500	mA

**● Thermal Characteristics**

Symbol	Parameter	Numerical(MAX)	Unit
$R_{th(j-c)}$	Junction to case(AC)	15	$^\circ C/W$
$R_{th(j-a)}$	Junction to ambient(AC)	156	$^\circ C/W$

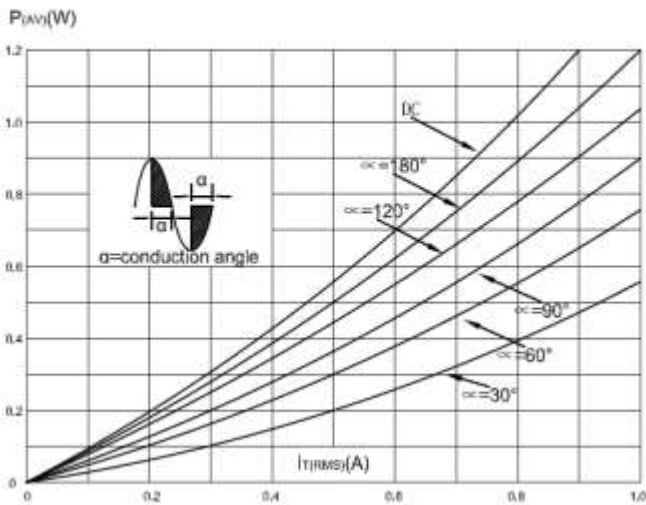
**BT134W Series**

## ● Package Outline Dimensions

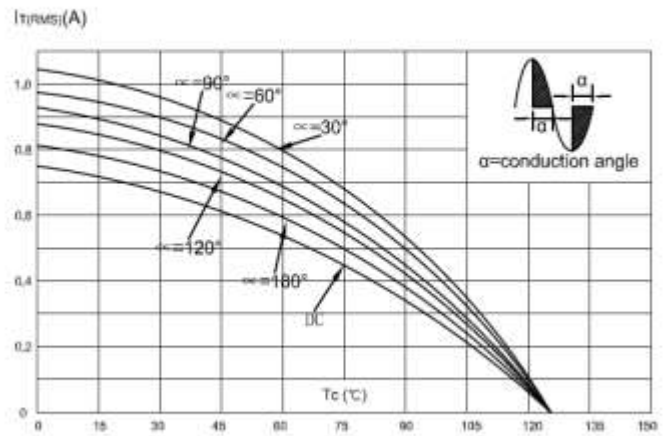


Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.520	1.800	0.060	0.071
A1	0.000	0.100	0.000	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.820	0.026	0.032
c	0.250	0.350	0.010	0.014
D	6.200	6.400	0.244	0.252
D1	2.900	3.100	0.114	0.122
E	3.300	3.700	0.130	0.146
E1	6.830	7.070	0.269	0.278
e	2.300(BSC)		0.091(BSC)	
e1	4.500	4.700	0.177	0.185
L	0.900	1.150	0.035	0.045
θ	0°	10°	0°	10°

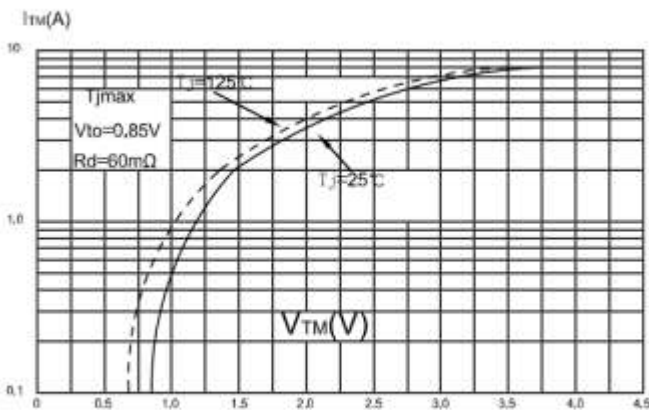
**FIG.1: Maximum power dissipation versus average on-state current.**



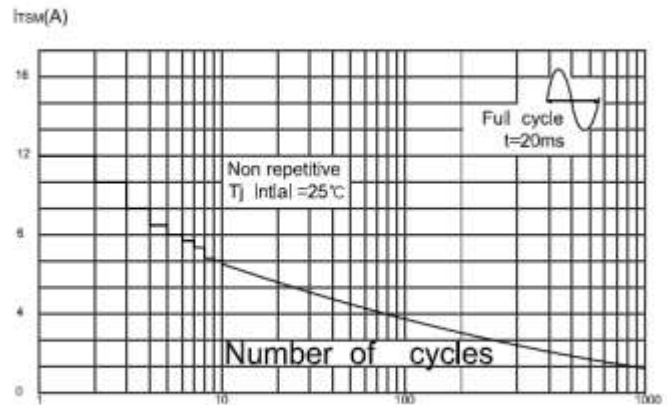
**FIG.2: RMS on-state current versus case temperature.**



**FIG.3: On-state characteristics (maximum values)**



**FIG.4: Surge peak on-state current versus number of cycles.**



**FIG.5: Relative variation of gate trigger current, holding current and latching current versus junction temperature (typical values).**

