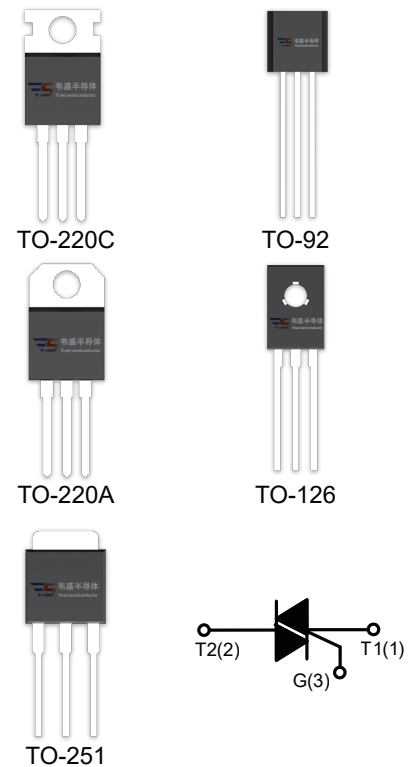


DESCRIPTION:

The BT134-600D SCR series with the parallel resistor between Gate and Cathode are especially recommended for use on straight hair, igniter, anion generator, etc.


MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	4	A
V_{DRM}/V_{RRM}	600/800	V

ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage junction temperature range		T_{stg}	-40 - 150	°C
Operating junction temperature range		T_j	-40 - 125	°C
Repetitive peak off-state voltage($T_j=25^{\circ}C$)		V_{DRM}	600/800	V
Repetitive peak reverse voltage($T_j=25^{\circ}C$)		V_{RRM}	600/800	V
Non repetitive surge peak Off-state voltage		V_{DSM}	$V_{DRM} + 100$	V
Non repetitive peak reverse voltage		V_{RSM}	$V_{RRM} + 100$	V
RMS on-state current	TO-251 ($T_c=100^{\circ}C$)	$I_{T(RMS)}$	4	A
	TO-220A(Non-Ins)/ TO-220C($T_c=103^{\circ}C$)			
	TO-202-3 ($T_c=95^{\circ}C$)			
	SOT-82 /TO-126 ($T_c=97^{\circ}C$)			
	TO-92 ($T_c=50^{\circ}C$)			

Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	25	A
I^2t value for fusing ($t_p = 10ms$)	I^2t	3.1	A^2s
Critical rate of rise of on-state current ($I_G = 2 \times I_{GT}$)	I - II - III	50	A/ μs
	IV	10	
Peak gate current	I_{GM}	2	A
Average gate power dissipation	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	5	W

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ C$ unless otherwise specified)

Symbol	Test Condition	Quadrant		Value			Unit
				T	D	E	
I_{GT}	$V_D = 12V$ $R_L = 33\Omega$	I - II - III	MAX	5	5	10	mA
		IV		5	10	25	
V_{GT}		ALL	MAX	1.3			V
V_{GD}	$V_D = V_{DRM}$ $T_j = 125^\circ C$ $R_L = 3.3K\Omega$	ALL	MIN	0.2			V
I_L	$I_G = 1.2I_{GT}$	I - III - IV	MAX	8	10	20	mA
		II		12	15	35	
I_H	$I_T = 100mA$		MAX	5	10	20	mA
dV/dt	$V_D = 2/3V_{DRM}$ Gate Open $T_j = 125^\circ C$		MIN	20	50	100	V/ μs
(dV/dt) _c	(dI/dt) _c = 1.1A/ms $T_j = 125^\circ C$		MIN	0.5	1	5	V/ μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V_{TM}	$I_{TM} = 5A$ $t_p = 380\mu s$	$T_j = 25^\circ C$	1.7	V
I_{DRM}	$V_D = V_{DRM}$ $V_R = V_{RRM}$	$T_j = 25^\circ C$	5	μA
I_{RRM}		$T_j = 125^\circ C$	0.5	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TO-251	3.7	°C/W
		TO-220A(Non-Ins)/ TO-220C	3.1	
		TO-202-3	4.5	
		SOT-82/TO-126	4.1	
		TO-92	11.2	

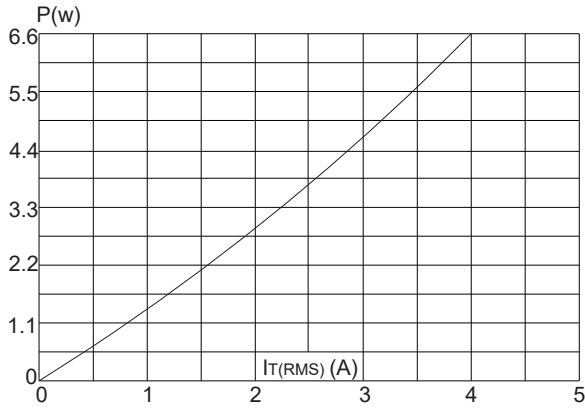
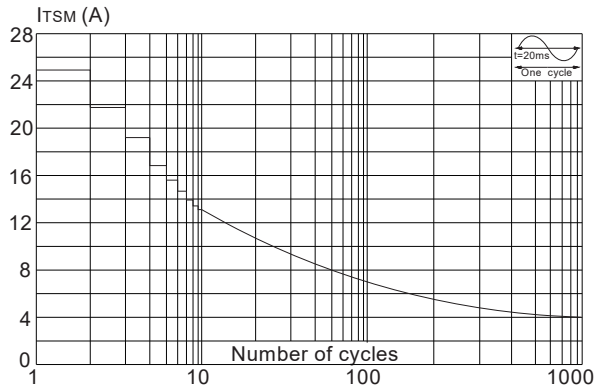
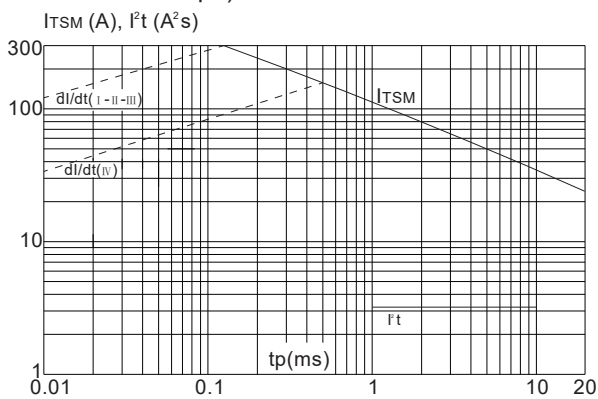
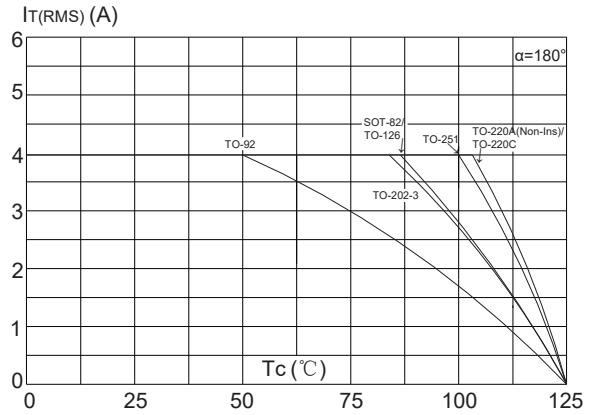
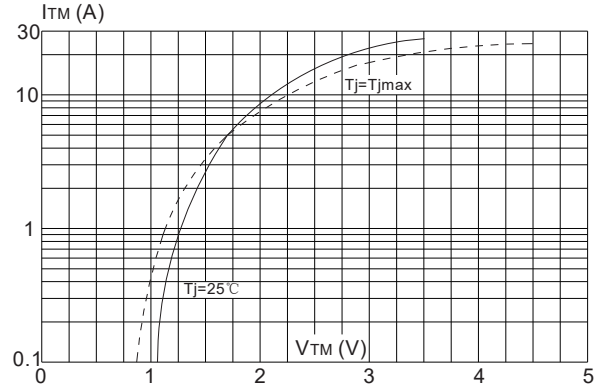
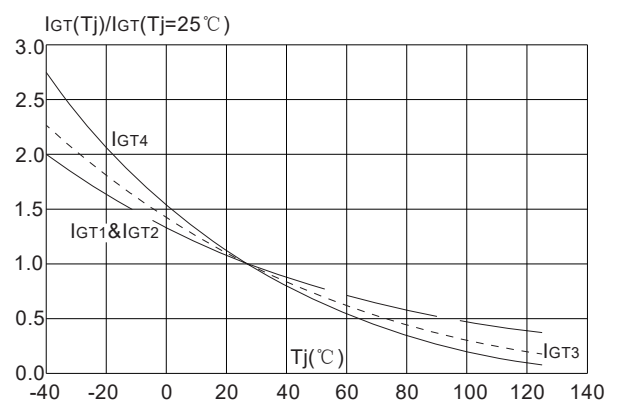
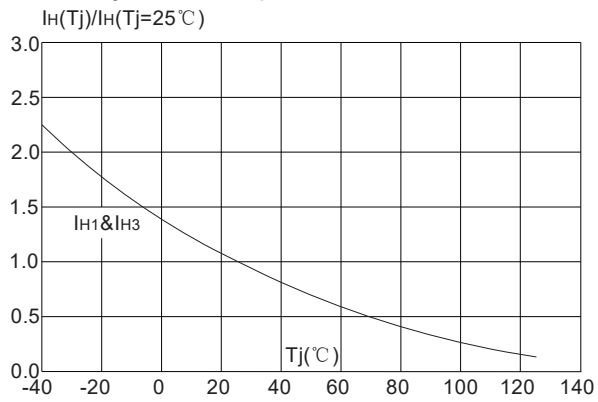
FIG.1: Maximum power dissipation versus RMS on-state current

FIG.3: Surge peak on-state current versus number of cycles

FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$ and corresponding value of I^2t (I - II - III: $dI/dt < 50\text{A}/\mu\text{s}$; IV: $dI/dt < 10\text{A}/\mu\text{s}$)

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

FIG.4: On-state characteristics (maximum values)

FIG.6: Relative variations of gate trigger current versus junction temperature


FIG.7: Relative variations of holding current versus junction temperature

FIG.8: Relative variations of latching current versus junction temperature
