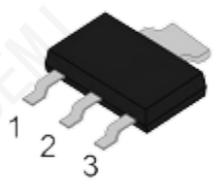
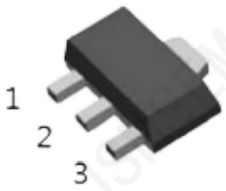
Description

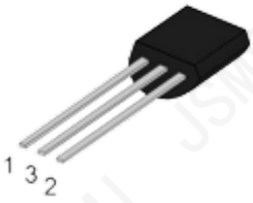
With low holding and latching current, BT134 Series triacs are especially recommended for use on middle and small resistance type power load.



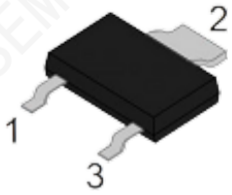
SOT-223-3L



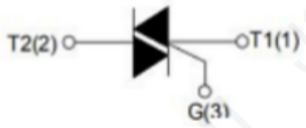
SOT-89-3L



TO-92



SOT-223-2L



Absolute Maximum Ratings

Parameter		Symbol	Value	Unit
Storage junction temperature range		T_{stg}	-40~150	℃
Operating junction temperature range		T_j	-40~125	℃
Repetitive peak off-state voltage (T_j=25℃)		V_{DRM}	600/800	V
Repetitive peak reverse voltage (T_j=25℃)		V_{RRM}	600/800	V
RMS on-state current		$I_{T(RMS)}$	2	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)		I_{TSM}	20	A
I^2t value for fusing (t_p=10ms)		I^2t	2	A^2s
Critical rate of rise of on-state current (I_G=2×I_{GT})	dI/dt	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℃ unless otherwise specified)

Parameter	Test Condition	Quadrant		Value			Unit
				T	D	E	
I_{GT}	V_D=12V, R_L=33Ω	Ⅰ-Ⅱ-Ⅲ	MAX	5	5	10	mA
		Ⅳ		5	10	25	
V_{GT}		Ⅰ-Ⅱ-Ⅲ-Ⅳ		1.3			V
V_{GD}	V_D=V_{DRM}	Ⅰ-Ⅱ-Ⅲ-Ⅳ	MIN	0.2			V
I_H	I_T=100mA		MAX	5	10	20	mA
I_L	I_G=1.2I_{GT}	Ⅰ-Ⅲ-Ⅳ	MAX	8	10	20	mA
		Ⅱ		12	15	35	
dV/dt	V_D=0.66×V_{DRM} T_j=125℃ Gate open		MIN	10	20	50	V/μs

Static Characteristics

Symbol	Test Condition			Value	Unit
V_{TM}	I_{TM}=3.5A t_p=380μs	T_j=25℃	MAX	1.5	V
I_{DRM} I_{RRM}	V_{DRM}= V_{RRM}	T_j=25℃	MAX	5	μA
		T_j=125℃		0.5	mA

Thermal Resistances

Symbol	Test Condition		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	SOT-223-2L SOT-223-3L	9	℃/W

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

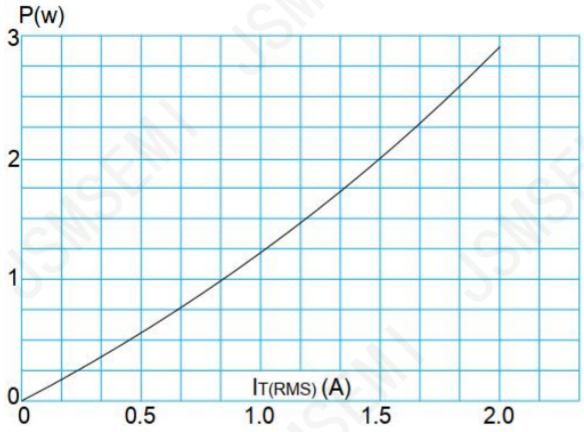


FIG.2: RMS on-state current versus case temperature

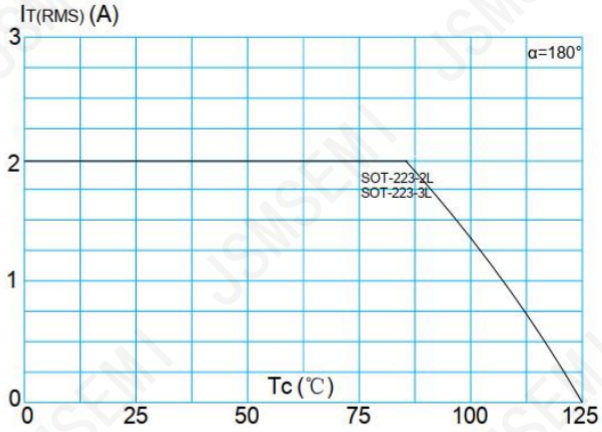


FIG.3: Surge peak on-state current versus number of cycles

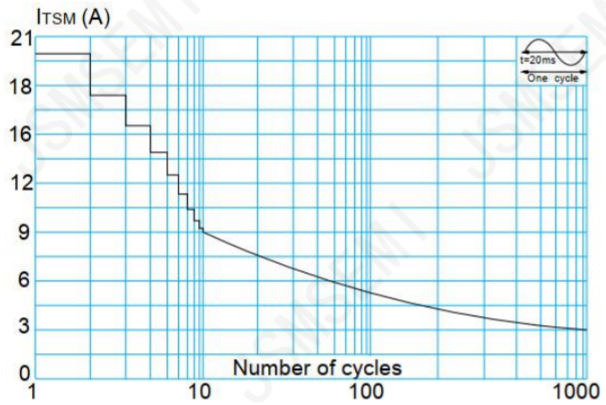


FIG.4: On-state characteristics (maximum values)

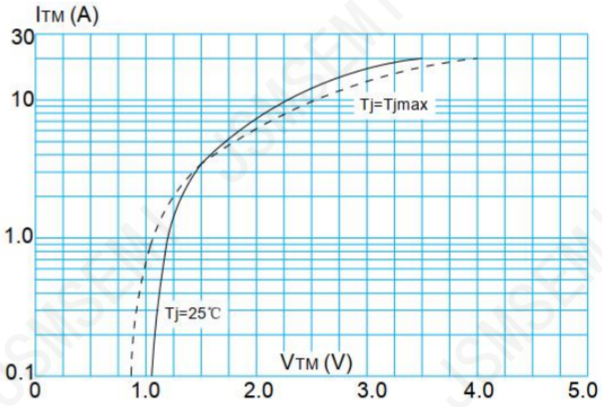


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<20ms, and corresponging value of I^2t (Ⅰ-Ⅱ-Ⅲ:dI/dt < 50A/μs;Ⅳ:dI/dt < 10A/μs)

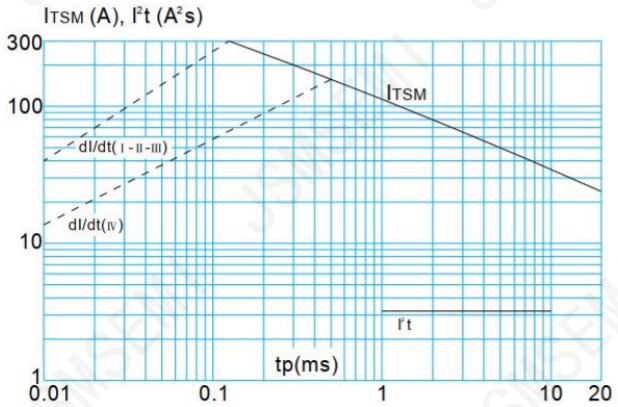


FIG.6: Relative variations of gate trigger current versus junction temperature

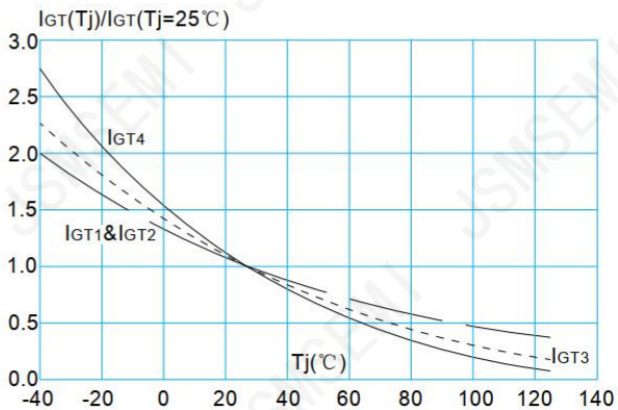


FIG.7: Relative variations of holding current versus junction temperature JINHANG

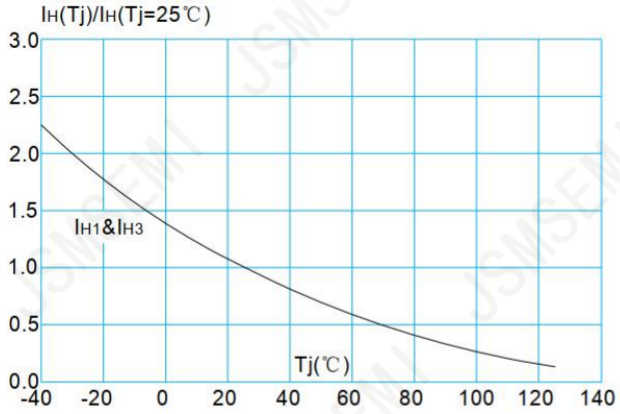
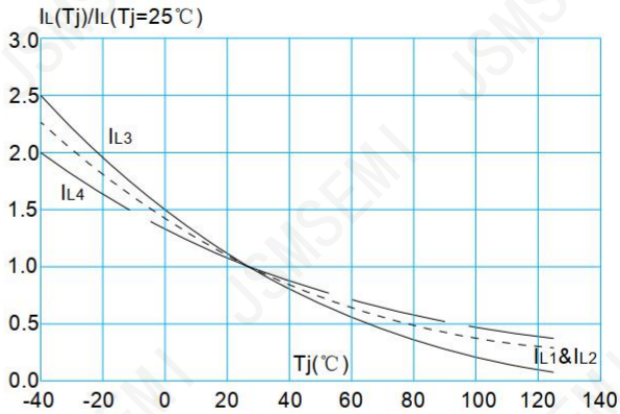
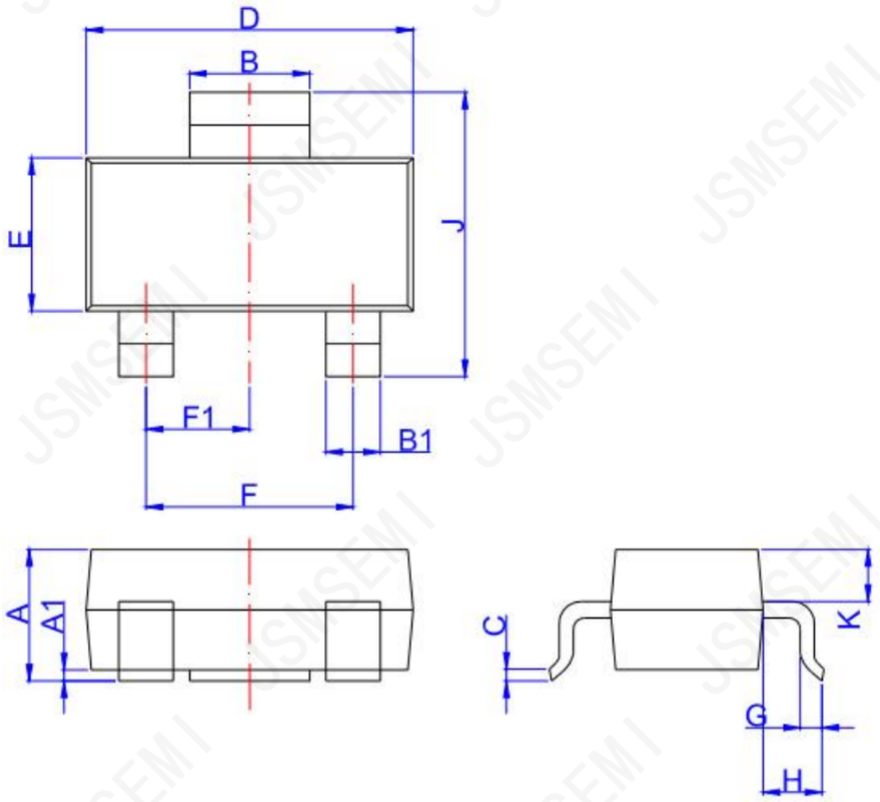


FIG.8: Relative variations of latching current versus junction temperature



Package Information

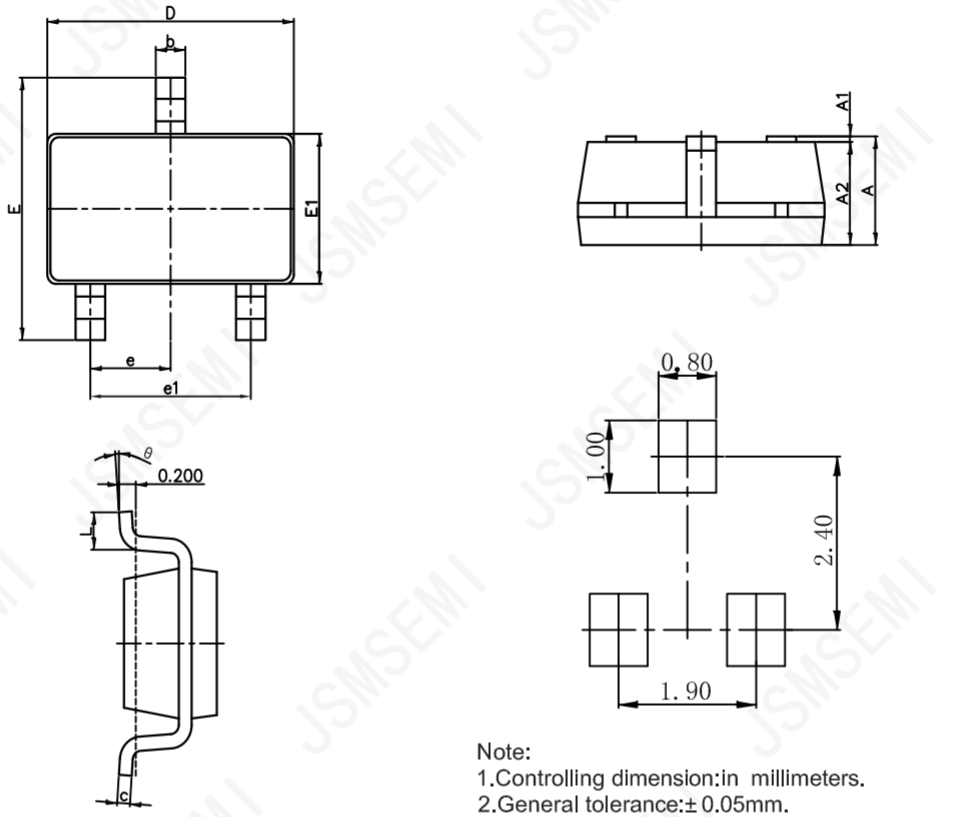
SOT-223-2L



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.5	1.6	1.8	0.059	0.063	0.071
A1	0.01	0.06	0.10	0.001	0.002	0.004
B	2.9	3.0	3.1	0.114	0.118	0.122
B1	0.6	0.7	0.8	0.024	0.028	0.031
C	0.22	0.25	0.32	0.009	0.010	0.013
D	6.3	6.5	6.7	0.248	0.256	0.264
E	3.3	3.5	3.7	0.130	0.138	0.146
F		4.6	6.8	0.252	0.181	
F1		2.3			0.091	
G	0.7	0.9	1.1	0.028	0.035	0.043
H	1.5	1.75	2.0	0.059	0.069	0.079
J	6.7	7.0	7.3	0.264	0.276	0.287
K	0.8	0.9	1.0	0.031	0.035	0.039

Package Information

SOT-23-3L



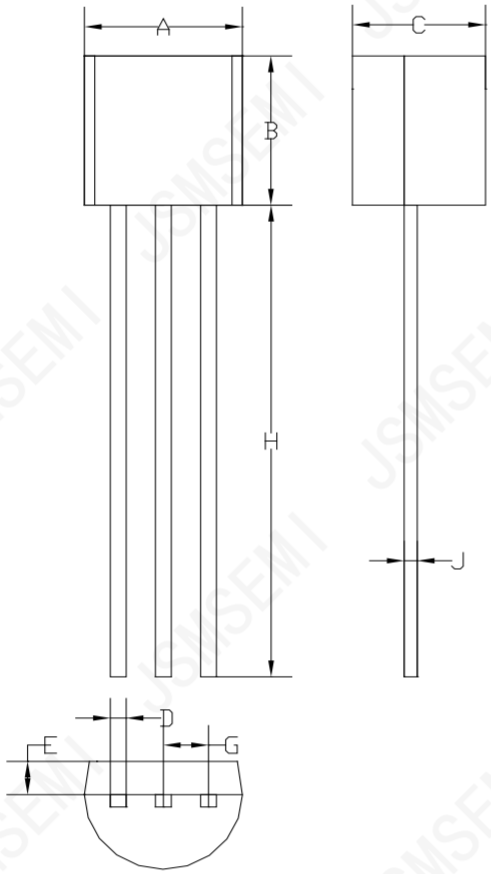
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	2.650	2.950	0.104	0.116
E1	1.500	1.700	0.059	0.067
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

Package Information

TO-92

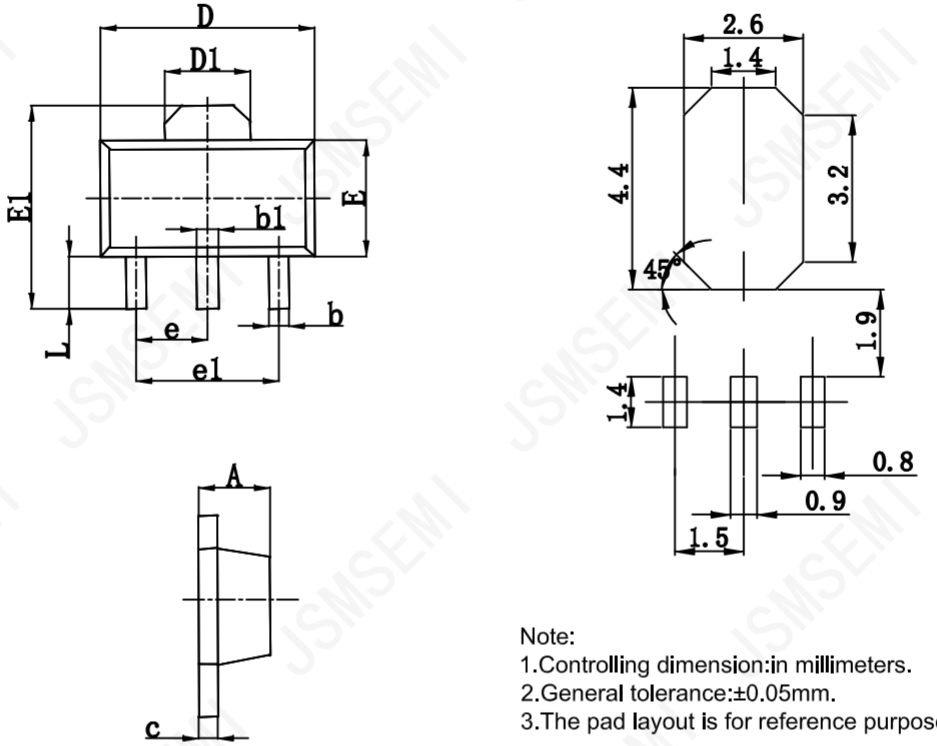
Plastic surface mounted package



TO-92		
Dim	Min	Max
A	4.4	4.7
B	4.3	4.7
C	3.43Typical	
D	0.38	0.55
E	1.1	1.4
G	1.27 Typical	
H	14.1	14.5
J	0.36	0.51
All Dimensions in mm		

Package Information

SOT-89-3L



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.197
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF		0.061 REF	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP		0.060 TYP	
e1	3.000 TYP		0.118 TYP	
L	0.900	1.200	0.035	0.047

Revision History

Rev.	Change	Date
V1.0	Initial version	06/27/2021
V1.1	Update template	10/20/2026

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