



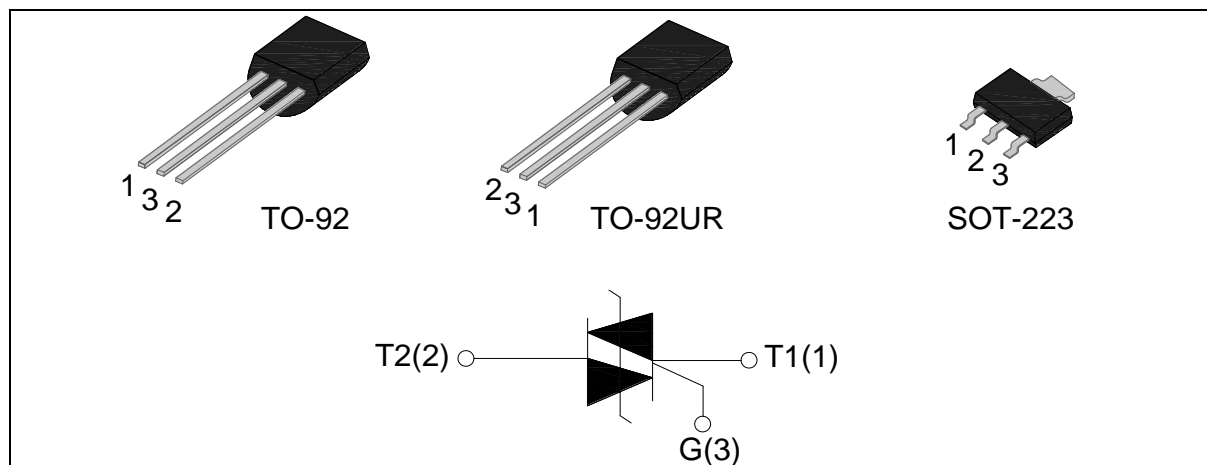
### DESCRIPTION:

JST01 series provide high dv/dt rate with strong resistance to electromagnetic interface.

They are especially recommended for use on home appliances such as motor control of washing machine, and for use on industrial control systems like electromagnetic valves.

### MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	1	A
$I_{GT1-3}$	10	mA
$V_{DRM}/V_{RRM}$	800 and 1000	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( $T_j=25^{\circ}C$ )	$V_{DRM}$	800/1000	V	
Repetitive peak reverse voltage( $T_j=25^{\circ}C$ )	$V_{RRM}$	800/1000	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-92/ TO-92UR ( $T_C=57^{\circ}C$ )	$I_{T(RMS)}$	1	A
	SOT-223( $T_C=90^{\circ}C$ )			

Non repetitive surge peak on-state current ( full cycle, F=50Hz)	$I_{TSM}$	15	A
$I^2t$ value for fusing ( $t_p=10ms$ )	$I^2t$	1.25	$A^2s$
Rate of rise of on-state current ( $I_G=2 \times I_{GT}$ )	$di/dt$	50	$A/\mu s$
Peak gate current	$I_{GM}$	1	A
Average gate power dissipation	$P_{G(AV)}$	0.1	W
Peak gate power	$P_{GM}$	0.5	W

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

Symbol	Test Condition	Quadrant		Value	Unit
$I_{GT}$	$V_D=12V R_L=33\Omega$	I - II -III	MAX	10	mA
$V_{GT}$		I - II -III	MAX	1.3	V
$V_{GD}$	$V_D=V_{DRM} T_j=125^\circ C$ $R_L=3.3K\Omega$	I - II -III	MIN	0.2	V
$I_L$	$I_G=1.2I_{GT}$	I -III	MAX	20	mA
		II		40	
$I_H$	$I_T=100mA$		MAX	15	mA
$dV/dt$	$V_D=2/3V_{DRM}$ Gate Open $T_j=125^\circ C$		MIN	200	$V/\mu s$

**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX)	Unit
$V_{TM}$	$I_{TM}=2A t_p=380\mu s$	$T_j=25^\circ C$	1.5	V
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25^\circ C$	5	$\mu A$
$I_{RRM}$		$T_j=150^\circ C$	1	mA

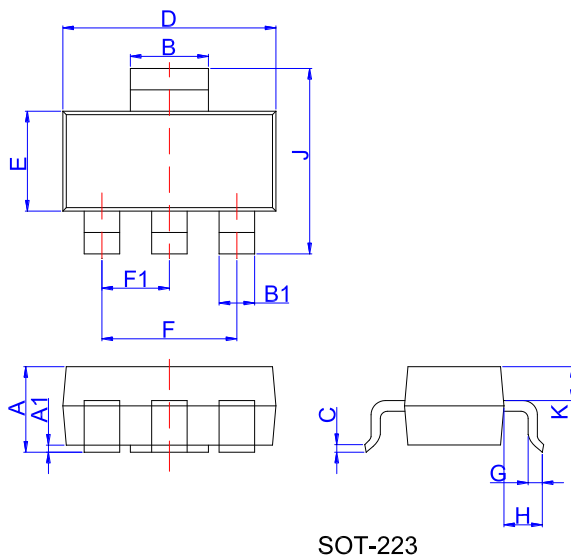
**THERMAL RESISTANCES**

Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TO-92/ TO-92UR	23	$^\circ C/W$
		SOT-223	9.5	

**ORDERING INFORMATION**

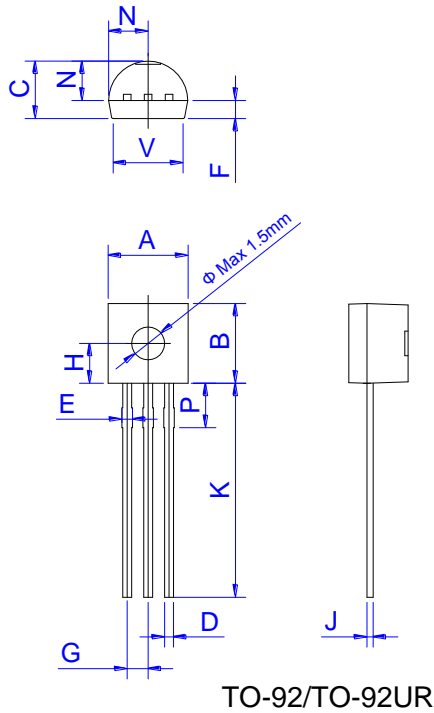
J	ST	01	U	-800	SW
JieJie Microelectronics Co.,Ltd		Triacs			$I_{GT1-3} \leq 10mA$
		$I_{T(RMS)}: 1A$	U: TO-92 V: SOT-223 UR: TO-92UR	800: $V_{DRM} / V_{RRM} \geq 800V$ 1000: $V_{DRM} / V_{RRM} \geq 1000V$	

**PACKAGE MECHANICAL DATA**



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	0.06	0.10	0	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	0.26	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			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 MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45		5.20	0.175		0.205
B	4.32		5.33	0.170		0.210
C	3.18		4.19	0.125		0.165
D	0.407		0.533	0.016		0.021
E	0.60		0.80	0.024		0.031
F	-	1.1	-	-	0.043	-
G	-	1.27	-	-	0.050	-
H	-	2.30	-	-	0.091	-
J	0.36		0.50	0.014		0.020
K	12.70		15.0	0.500		0.591
N	2.04		2.66	0.080		0.105
P	1.86		2.06	0.073		0.081
V	-		4.3	-		0.169

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

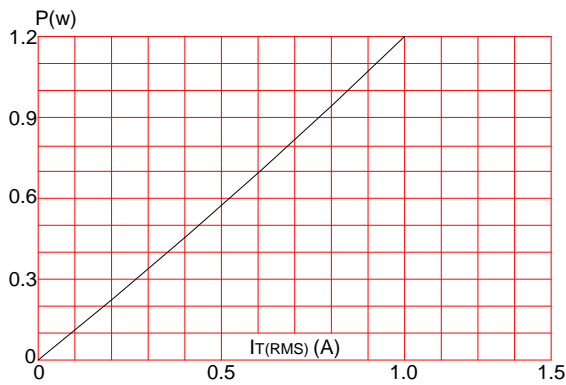


FIG.2: RMS on-state current versus case temperature

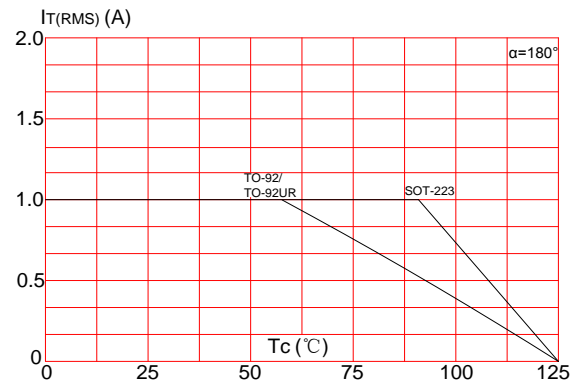


FIG.3: Surge peak on-state current versus number of cycles

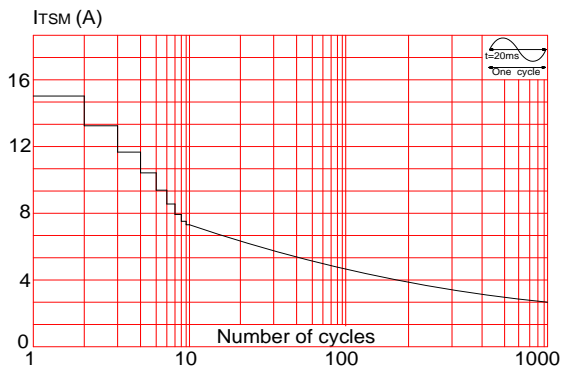
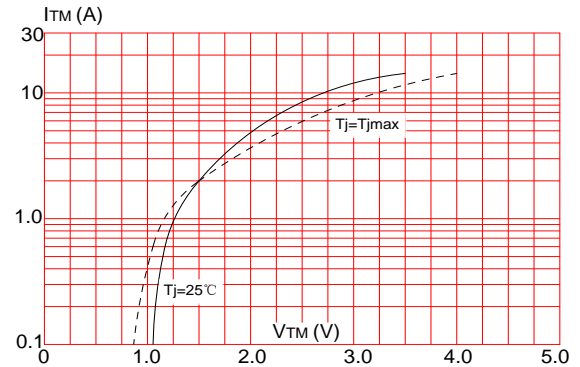
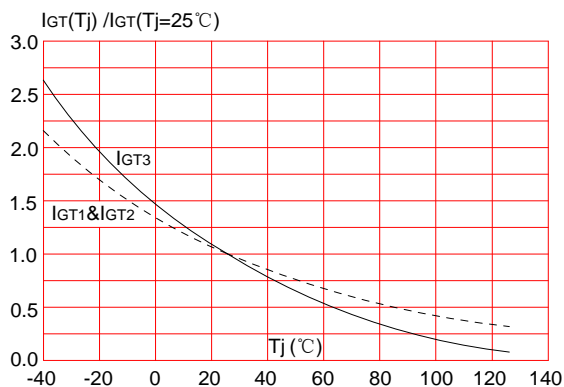


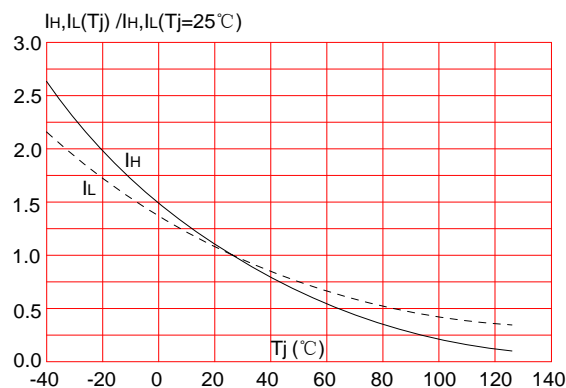
FIG.4: On-state characteristics (maximum values)



**FIG.5:** Relative variations of gate trigger current versus junction temperature



**FIG.6:** Relative variations of holding current, latching current versus junction temperature



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