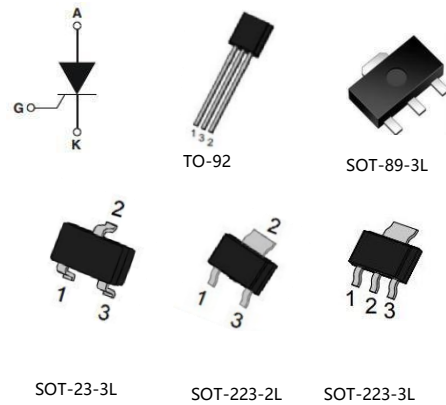


Applications

Mainly used for voltage regulation circuit, such as dimming, thermal control; home appliance such as microwave ovens, washing machines, electric fans, water dispensers, night light control circuit and used for ac phase, chopper, inverter, the inverter and solid state relay circuits.



Features

Adopt advanced glass passivation technology, low pass state pressure drop, high reliability, stability.

Absolute maximum ratings($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Test conditions		Type	Unit
V_{DRM}	Peak Repetitive Off-State Voltage		600	V
V_{RRM}	Peak Repetitive Reverse Blocking Voltage		600	V
$I_{\text{T(RMS)}}$	On-State RMS Current(full sine wave)		1	A
I_{TSM}	Non-Repetitive Peak on-state Current	F = 50 Hz t=20ms	10	
		F = 60 Hz t=16.7ms	9	
I^2t	$I_G = 2 \times I_{\text{GT}}$, $t_r \leq 100 \text{ ns}$	$t_p = 10 \text{ ms}$	0.24	A^2s
di/dt	Repetitive rate of rise of on-state current after triggering	F = 120 Hz $T_j=125^{\circ}\text{C}$	30	$\text{A}/\mu\text{s}$
T_{stg}	Storage Temperature Range		- 40 to + 150	$^{\circ}\text{C}$
T_j	Operating Junction Temperature		- 40 to + 125	

Electrical characteristics($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Test condition		Value	Unit
I_{DRM}	$V_{\text{DRM}}=V_{\text{RRM}} T_j=25^{\circ}\text{C}$	MAX	10	μA
	$V_{\text{DRM}}=V_{\text{RRM}} T_j=125^{\circ}\text{C}$	MAX	1	mA
I_{RRM}				
I_{GT}	$V_{\text{D}}=12\text{V } R_{\text{L}}=30\ \Omega$	MAX	200	μA
V_{GT}		MAX	0.8	V
V_{GD}	$V_{\text{D}}=V_{\text{DRM}} R_{\text{L}}=3.3\text{k}\Omega T_j=125^{\circ}\text{C}$	MIN	0.1	
I_{H}	$I_{\text{T}}=100\text{mA}$	MAX	5	mA
I_{L}	$I_{\text{G}}=1.2 I_{\text{GT}}$		6	
dV/dt	$V_{\text{D}}=67\%V_{\text{DRM}}$ gate open $T_j=125^{\circ}\text{C}$	MIN	25	V/ μs

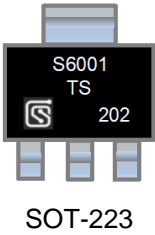
Packing

Package	Quantity	Method
SOT-23	3000/reel, 30000/box, 120000/carton	reel/carton
SOT-223-2L/-3L	2500/reel, 25000/carton	
TO-92C/TO-92J	1000/bag, 10000/box, 50000/carton	box/carton
TO-92B	2000/box, 20000/carton	
Shipping	Express	

Maintaining Requirement

Temperature	10-30 $^{\circ}\text{C}$
Humidity	<60%
Time Limit	12 month
Status	storage

Naming & Marking



S 60 01 X XX XX

DEVICE TYPE
S: SCR

VOLTAGE RATING
60: 600 V

CURRENT RATING
02: 2 A

PACKING TYPE

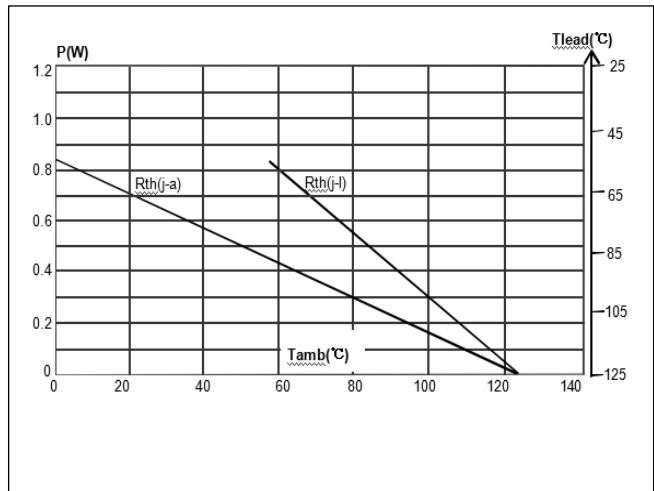
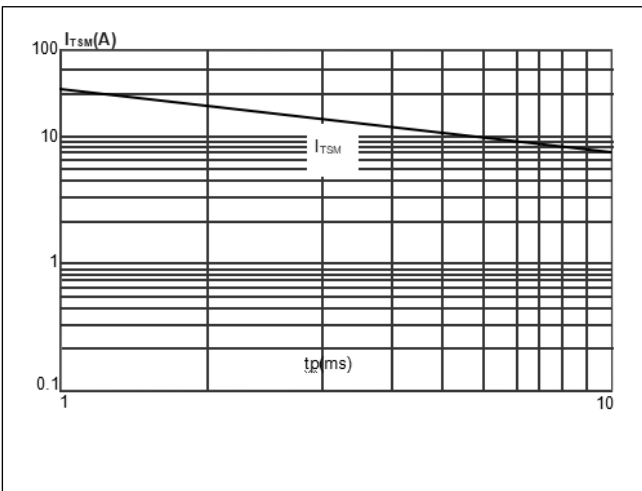
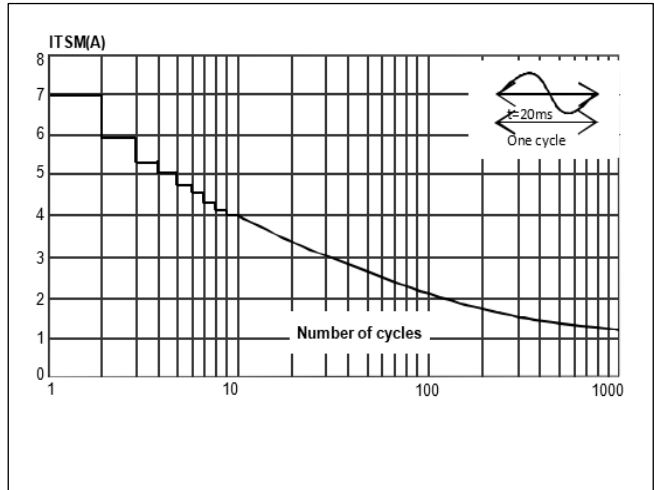
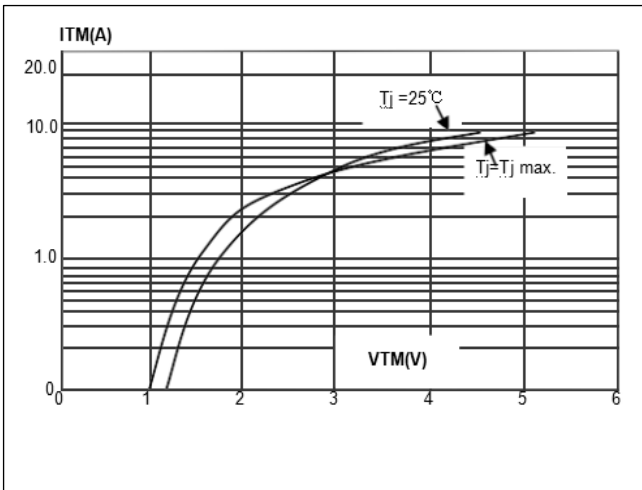
- Blank: Bulk Pack
- RP: Reel Pack (TO-92)
- Embossed Carrier Pack (SOT-223)
- AP: Ammo Pack (TO-92)

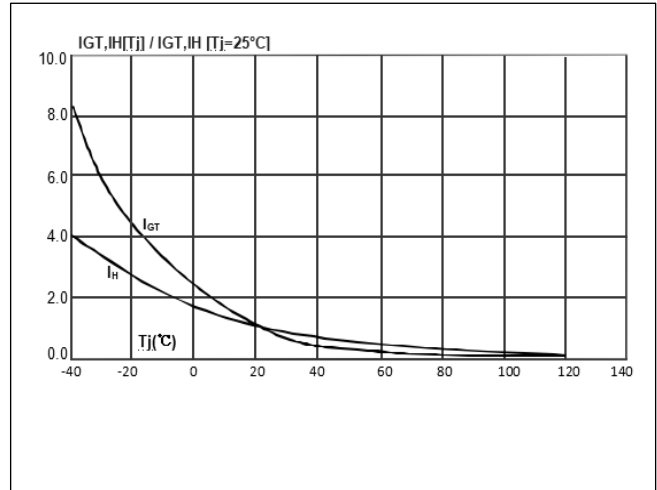
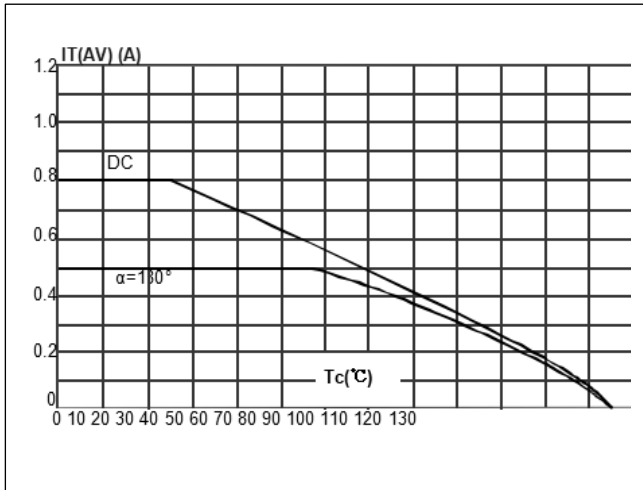
SENSITIVITY & TYPE
S: 200 μ A Sensitive SCR

PACKAGE TYPE

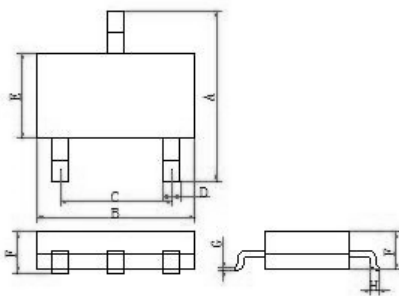
- E: TO-92
- T: SOT-223

Characteristics



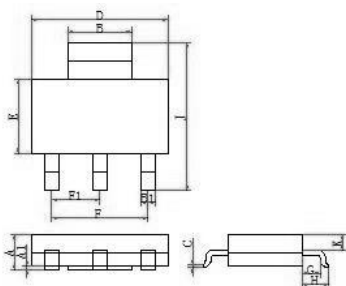


Dimension



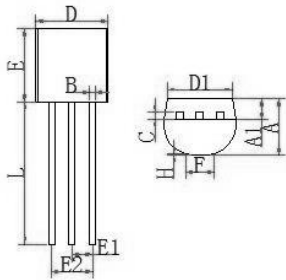
SOT-23-3L

REF.	DIMENSIONS	REF.	DIMENSIONS
	Millimeters		Millimeters
	Type		Type
A	2.8±0.2	E	1.58±0.2
B	2.9±0.2	F	1.3±0.08
C	1.9±0.15	G	0.15±0.05
D	0.4±0.1	H	0.45±0.08

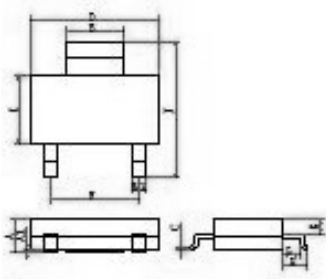


SOT-223-3L

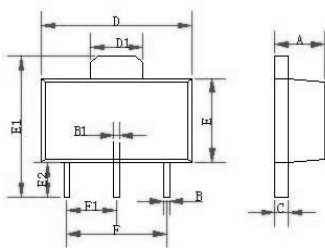
REF.	DIMENSIONS	REF.	DIMENSIONS
	Millimeters		Millimeters
	Type		Type
A	1.65±0.2	F	4.6±0.1
A1	0.06±0.04	F1	2.3
B	3.0±0.1	G	1.0±0.2
B1	0.75±0.1	H	1.75±0.1
C	0.28±0.08	J	6.9±0.2
D	6.4±0.2	K	0.8±0.1
E	3.5±0.2		


TO-92

REF.	DIMENSIONS		REF.	DIMENSIONS	
	Millimeters			Millimeters	
	Type			Type	
A	3.55±0.2		E	4.6±0.1	
A1	2.3±0.2		E1	1.27±0.05	
B	0.45±0.05		E2	1.27±0.05	
C	0.38±0.05		F	0.3±0.05	
D	4.6±0.2		H	1.5±0.1	
D1	4.2±0.2		L	14.3±0.2	


SOT-223-2L

REF.	DIMENSIONS		REF.	DIMENSIONS	
	Millimeters			Millimeters	
	Type			Type	
A	1.65±0.2		E	3.5±0.2	
A1	0.06±0.04		F	4.6±0.1	
B	3.0±0.1		G	1.0±0.2	
B1	0.75±0.1		H	1.75±0.1	
C	0.28±0.08		J	6.9±0.2	
D	6.4±0.2		K	0.8±0.1	


SOT-89-3L

REF.	DIMENSIONS		REF.	DIMENSIONS	
	Millimeters			Millimeters	
	Type			Type	
A	1.5±0.2		E	2.5±0.2	
B	0.38±0.15		E1	3.97±0.2	
B1	0.38±0.15		E2	1±0.15	
C	0.4±0.2		F	3	
D	4.5±0.2		F1	1.5±0.1	
D1	1.4±0.2				

Revision history of Specification

Version	Change Items	Effective Date
1.0	Initial Release	13-Aug-2021