

## Description

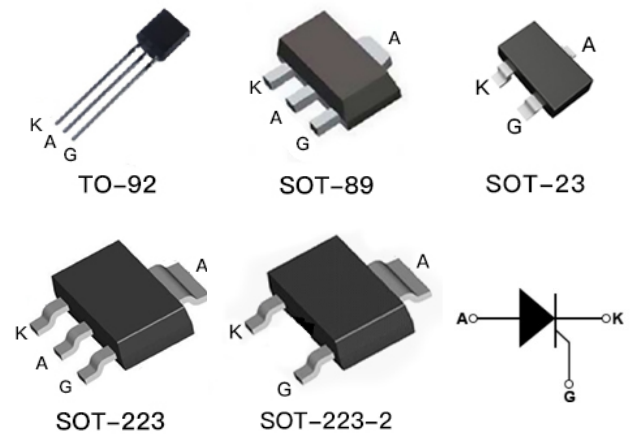
High sensitive triggering levels, the LC08-06 Series SCRs is suitable for all applications, where the available gate current is limited.

## Features

- On-state RMS current to 0.8A
- Max. blocking voltage =  $V_{DRM}$ ,  $V_{RRM}$  = 600 V

## Applications

- Anion Generator
- Ground FaultCircuit Interrupter
- Gas Ignition applications



## Absolute Maximum Ratings

Rating		Symbol	Value
Peak repetitive off-state voltage ( 50Hz to 60Hz; Gate open) (Note 1)		$V_{DRM}$ $V_{RRM}$	600V
On-state RMS current (180° sine wave)		$I_{T(RMS)}$	0.8A
Non repetitive surge peak on-state current (full cycle, T initial = 25°C)	F=50Hz, t=10ms	$I_{TSM}$	9A
$I^2t$ Value for fusing	$t_p=10ms$	$I^2t$	0.415 A <sup>2</sup> s
Non repetitive surge peak off-state voltage	$t_p=10ms$ , $T_J=25^\circ C$	$V_{DSM}/V_{RSM}$	$V_{DRM}/V_{RRM}+100V$
Peak gate current	$t_p=20\mu s$ , $T_J=125^\circ C$	$I_{GM}$	1A
Average gate power dissipation	$T_J=125^\circ C$	$P_{G(AV)}$	0.1W
Storage junction temperature range		$T_{STG}$	-40°C to +150°C
Operating junction temperature range		$T_J$	-40°C to +125°C

Note:

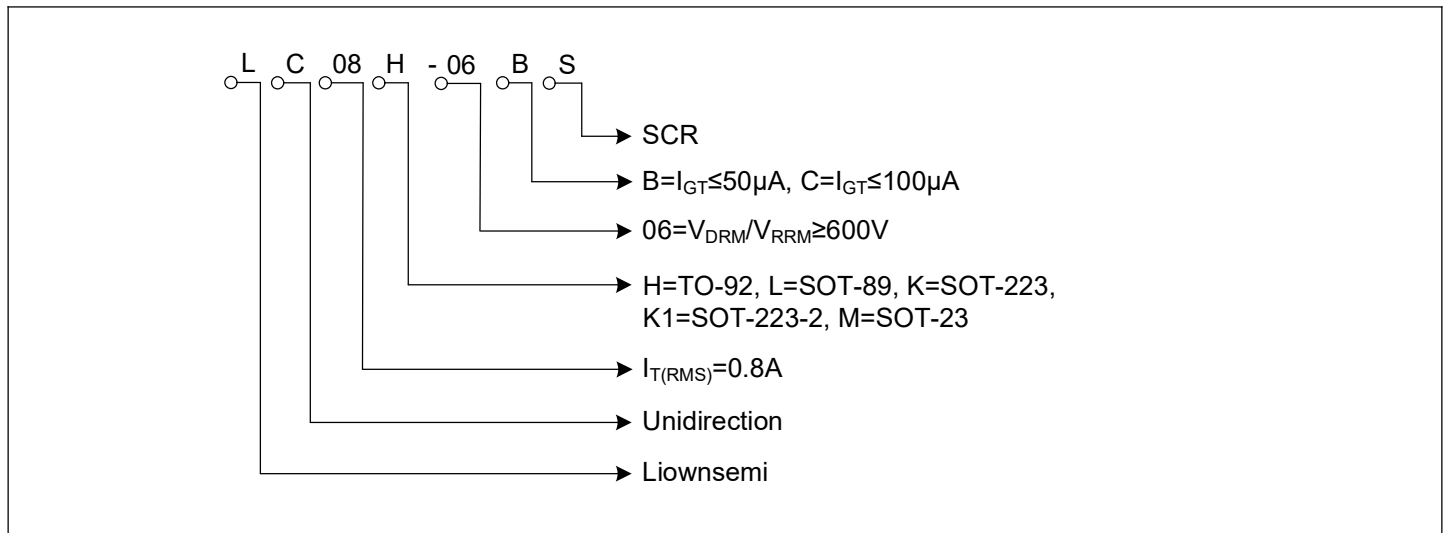
1.  $V_{DRM}$  and  $V_{RRM}$  for all types can be applied on a continuous basis.

Blocking voltages shall not be tested with a constant current source such that the voltage ratings of the devices are exceeded.

**Electrical Characteristics ( $T_J=25^{\circ}\text{C}$ , unless otherwise specified)**

Parameter	Symbol	Value
$V_D=12\text{V}$ , $R_L=33\Omega$	$I_{GT \text{ Max.}}$	50 $\mu\text{A}$ /100 $\mu\text{A}$
	$V_{GT \text{ Max.}}$	0.8V
$V_D=V_{DRM}$ , $R_L=3.3\text{k}\Omega$ , $T_J=125^{\circ}\text{C}$	$V_{GD \text{ Min.}}$	0.2V
$I_T=50\text{mA}$ , gate open	$I_H \text{ Max.}$	5mA
$I_G=1.2I_{GT}$	$I_L \text{ Max.}$	10mA
$V_D=67\%V_{DRM}$ gate open, $T_J=125^{\circ}\text{C}$	$dv/dt \text{ Min.}$	10V/ $\mu\text{s}$
$I_{TM}=0.8\text{A}$ , $t_p=380\mu\text{s}$ , $T_J=25^{\circ}\text{C}$	$V_{TM \text{ Max.}}$	1.7V
$V_{DRM}=V_{RRM}$ , $T_J=25^{\circ}\text{C}$	$I_{DRM \text{ Max.}}$	5 $\mu\text{A}$
$V_{DRM}=V_{RRM}$ , $T_J=125^{\circ}\text{C}$	$I_{RRM \text{ Max.}}$	0.5mA

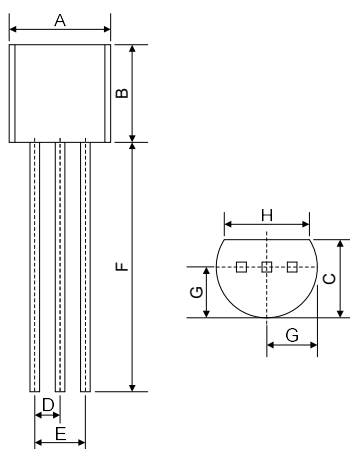
**Part Number Code**



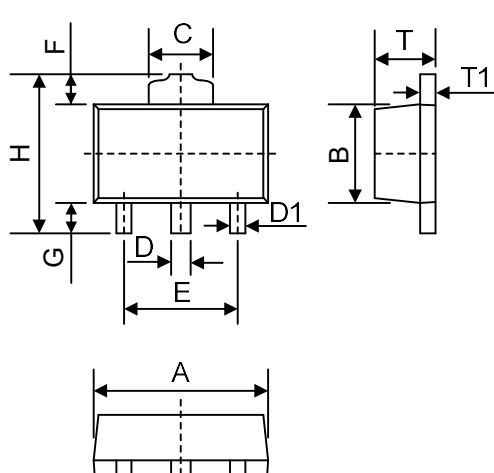
## Ordering Information

Part Number	Marking	Package
LC08H-06BS	LC08H-06BS	TO-92
LC08H-06CS	LC08H-06CS	TO-92
LC08L-06BS	LC08L-06BS	SOT-89
LC08L-06CS	LC08L-06CS	SOT-89
LC08K-06BS	LC08K-06BS	SOT-223
LC08K-06CS	LC08K-06CS	SOT-223
LC08K1-06BS	LC08K1-06BS	SOT-223-2
LC08K1-06CS	LC08K1-06CS	SOT-223-2
LC08M-06BS	C08MB	SOT-23
LC08M-06CS	C08MC	SOT-23

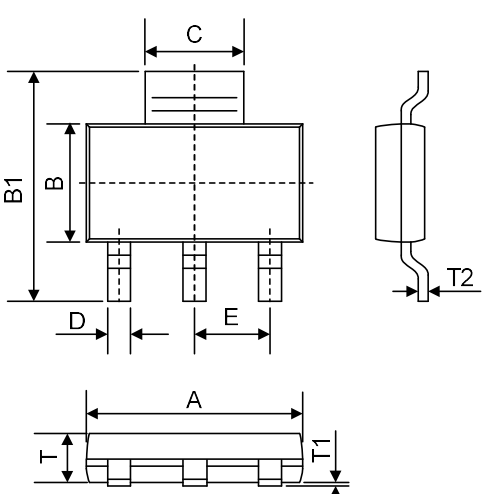
## Dimensions

TO-92	Symbol	Millimeters	
		Min.	Max.
	A	4.45	5.20
	B	4.32	5.33
	C	3.175	4.191
	D	1.143	1.397
	E	2.413	2.667
	F	12.70	-
	G	2.04	2.66
	H	3.43	-

## Dimensions

SOT-89	Symbol	Millimeters	
		Min.	Max.
	A	4.40	4.60
	B	2.40	2.60
	C	1.65	1.75
	D	0.43	0.53
	D1	0.35	0.45
	E	2.95	3.05
	F	0.82	0.83
	G	0.82	0.83
	H	4.05	4.25
	T	1.40	1.60
	T1	0.35	0.45

SOT-223	Symbol	Millimeters	
		Min.	Max.
	A	6.40	6.60
	B	3.30	3.70
	B1	6.80	7.20
	C	2.90	3.10
	D	0.65	0.75
	E	2.30 BSC	
	T	1.50	1.70
	T1	0.02	0.10
	T2	0.20	0.30

**Dimensions**

SOT-223-2	Symbol	Millimeters	
		Min.	Max.
	A	6.40	6.60
	B	3.40	3.60
	B1	6.85	7.15
	C	2.95	3.05
	D	0.66	0.76
	E	2.286 BSC	
	T	1.45	1.65
	T1	0.03	0.15
	T2	0.20	0.35

SOT-23	Symbol	Millimeters	
		Min.	Max.
	A	2.80	3.00
	B	2.25	2.55
	B1	1.20	1.40
	C	0.30	0.50
	E	1.80	2.00
	T	0.90	1.15
	T1	0.00	0.10
	T2	0.08	0.15

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