



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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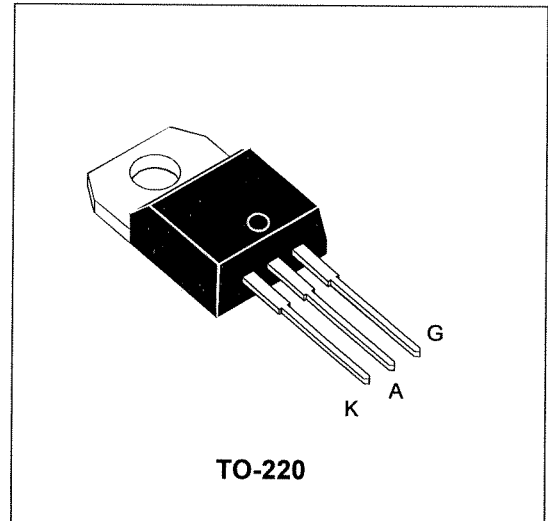


### FEATURES

- # ITRMS = 20A
- # IGT < 25mA
- # HIGH SURGE PERFORMANCE
- # Insulation voltage : 2500V RMS  
(UL recognized file E81734)

### DESCRIPTION

The TXN692 Silicon Controlled Rectifier uses a high performance glass passivated technology. This SCR is suitable for crowbar protection or to drive inductive load.



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$I_{T(RMS)}$	RMS on-state current ( 180° conduction angle )	$T_c = 85\text{ }^\circ\text{C}$ 20	A
$I_{T(AV)}$	Average on-state current ( 180° conduction angle )	$T_c = 85\text{ }^\circ\text{C}$ 13	A
$I_{TSM}$	Non repetitive surge peak on-state current ( $T_J$ initial = 25°C )	$t_p = 8.3\text{ ms}$ $t_p = 10\text{ ms}$ 260 250	A
$I^2t$	$I^2t$ value for fusing	$t_p = 10\text{ ms}$ 310	A <sup>2</sup> s
$di/dt$	Critical rate of rise of on-state current $I_G = 100\text{ mA}$ $di_G/dt = 1\text{ A} / \mu\text{s}$	100	A/ $\mu\text{s}$
$T_{stg}$ $T_j$	Storage temperature range Operating junction temperature range	-40+150 -40+125	°C
$T_l$	Maximum lead temperature for soldering during 10s at 4.5mm from case.	260	°C

Symbol	Parameter	TYN692	Unit
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage $T_j = 125^\circ\text{C}$	800	V

## THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
Rth (j-a)	Junction to ambient	60	°C/W
Rth (j-c)	Junction to case for DC	2.5	°C/W

## GATE CHARACTERISTICS

$$P_{G(AV)} = 1 \text{ W} \quad P_{GM} = 10 \text{ W (tp = 20}\mu\text{s)} \quad I_{FGM} = 4 \text{ A (tp = 20}\mu\text{s)} \quad V_{RGM} = 5 \text{ V}$$

## ELECTRICAL CHARACTERISTICS

Symbol	Test conditions				Value	Unit
$I_{GT}$	$V_D = 12 \text{ V (DC)}$	$RL = 33 \text{ Ohm}$	$T_j = 25^\circ\text{C}$	MAX	25	mA
$V_{GT}$	$V_D = 12 \text{ V (DC)}$	$RL = 33 \text{ Ohm}$	$T_j = 25^\circ\text{C}$	MAX	1.3	V
$V_{GD}$	$V_D = V_{DRM}$	$RL = 3.3 \text{ kOhm}$	$T_j = 125^\circ\text{C}$	MIN	0.2	V
$I_H$	$I_T = 100 \text{ mA}$	Gate open	$T_j = 25^\circ\text{C}$	MAX	40	mA
$I_L$	$I_G = 1.2 \times I_{GT}$		$T_j = 25^\circ\text{C}$	MAX	90	mA
$V_{TM}$	$I_{TM} = 50 \text{ A}$	$tp = 380 \mu\text{s}$	$T_j = 25^\circ\text{C}$	MAX	1.4	V
$I_{DRM}$ $I_{RRM}$	$V_D = V_{DRM}$ $V_R = V_{RRM}$		$T_j = 25^\circ\text{C}$	MAX	10	$\mu\text{A}$
$dV/dt$	$V_D = 67\% V_{DRM}$	Gate open	$T_j = 125^\circ\text{C}$	MIN	500	$\text{V}/\mu\text{s}$