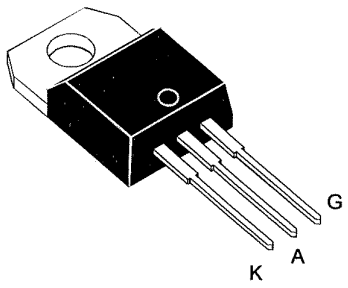
TXN692

SCR

FEATURES

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



TO-220

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)	Tc = 85 °C	20	A
$I_{T(AV)}$	Average on-state current (180° conduction angle)	Tc =85 °C	13	A
I_{TSM}	Non repetitive surge peak on-state current (TJ initial = 25°C)	tp = 8.3 ms tp = 10 ms	260 250	A
I^2t	I^2t value for fusing	tp = 10 ms	310	A^2s
dI/dt	Critical rate of rise of on-state current I_G = 100 mA dI_G/dt = 1A / µs		100	A/µs
Tstg Tj	Storage temperature range Operating junction temperature range		-40+150 -40+125	°C
Tl	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 Tj = 125°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 W P_{GM} = 10 w (tp = 20µs) I_{FGM} = 4A (tp = 20µs) V_{RGM} = 5V

ELECTRICAL CHARACTERISTICS

Symbol	Test conditions			Value	Unit
I_{GT}	V_D = 12V (DC) RL = 33 Ohm	Tj = 25°C	MAX	25	mA
V_{GT}	V_D = 12V (DC) RL = 33 Ohm	Tj = 25°C	MAX	1.3	V
V_{GD}	$V_D = V_{DRM}$ RL = 3.3kOhm	Tj = 125°C	MIN	0.2	V
I_H	I_T = 100mA Gate open	Tj = 25°C	MAX	40	mA
I_L	$I_G = 1.2 \times I_{GT}$	Tj = 25°C	MAX	90	mA
V_{TM}	I_{TM} =50A tp = 380µs	Tj = 25°C	MAX	1.4	V
I_{DRM} I_{RRM}	$V_D = V_{DRM}$ $V_R = V_{RRM}$	Tj = 25°C	MAX	10	µA
		Tj = 125°C	MAX	2	mA
dV/dt	V_D = 67% V_{DRM} Gate open	Tj = 125°C	MIN	500	V/µs