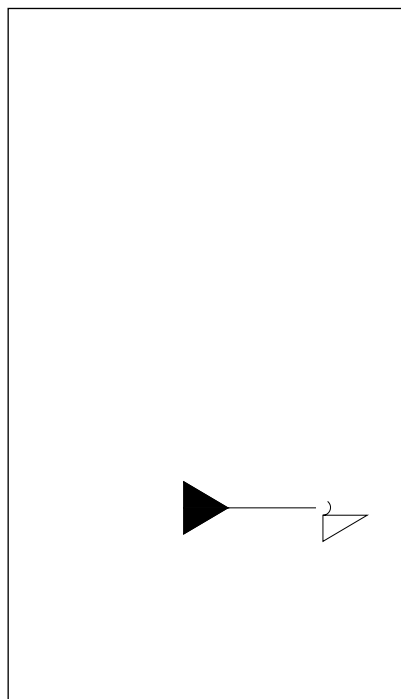




DESCRIPTION:

With high ability to withstand the shock loading of large current, TYN08H-800C of silicon controlled rectifiers provides high dV/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use on solid state relay, motorcycle, power charger, T-tools etc. Package TO-220C is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(AV)}$	8	A
V_{DRM}/V_{RRM}	800	V
I_{GT}	15	mA

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-150	
Operating temperature range	T_{op}	-40-125	
Repetitive peak off-state voltage ($T_j=25^\circ C$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ C$)	V_{RRM}	800	V
Average on-state current ($T_c=130^\circ C$)	$I_{T(AV)}$	8	A
RMS on-state current ($T_c=130^\circ C$)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current ($t_p=10ms, T_j=25^\circ C$)	I_{TSM}	120	A
Non repetitive surge peak on-state current ($t_p=8.3ms, T_j=25^\circ C$)		132	
I^2t value for fusing ($t_p=10ms, T_j=25^\circ C$)	I^2t	72	A^2s
Critical rate of rise of on-state current ($I_G=2 I_{GT}, f=100Hz, T_j=150^\circ C$)	di/dt	150	$A/\mu s$

Peak gate current ($t_p=20\mu s$, $T_j=150$)	I_{GM}	4	A
Average gate power dissipation ($T_j=150$)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	0.5	kV

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Value			Unit
		MIN.	TYP.	MAX.	
I_{GT}	$V_D=12V$ $R_L=33$	-	-	15	mA
V_{GT}		-	-	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=150$ $R_L=3.3K$	0.2	-	-	V
I_L	$I_G=1.2I_{GT}$	-	-	50	mA
I_H	$I_T=500mA$	-	-	40	mA
dV/dt	$V_D=540V$ Gate Open $T_j=150$	300	-	-	V/ μs
t_{on}	$I_G=20mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$	-	5	-	μs
t_{off}		-	80	-	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=24A$ $t_p=380\mu s$	$T_j=25$	1.5	V
V_{TO}	Threshold voltage	$T_j=150$	0.73	V
R_D	Dynamic resistance	$T_j=150$	35	m
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	μA
I_{RRM}		$T_j=150$	0.3	mA

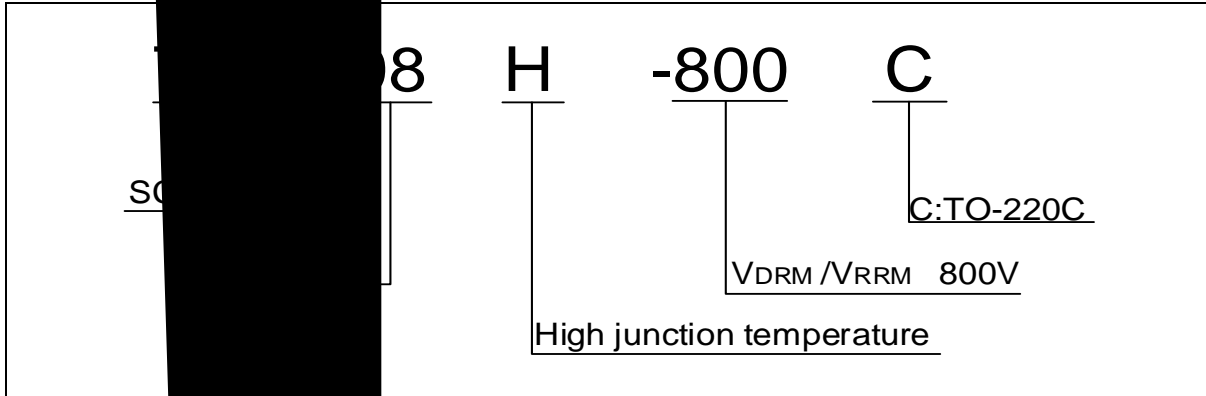
THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case(DC)	1.3	/W
$R_{th(j-a)}$	junction to ambient (DC)	55	/W

TEL:

TYN08H

ORDERING INFORMATION



MARKING

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

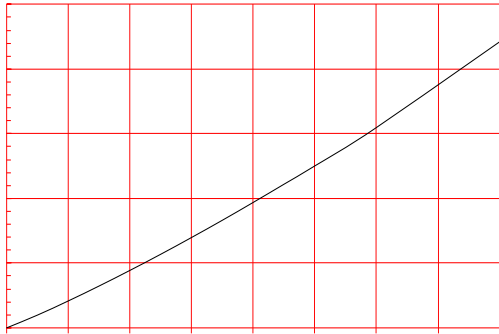


FIG.2: RMS on-state current versus case temperature

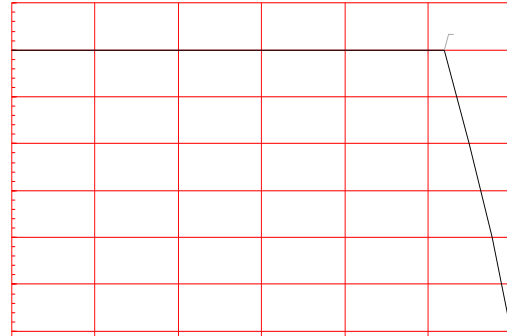


FIG.3: Surge peak on-state current versus number of cycles

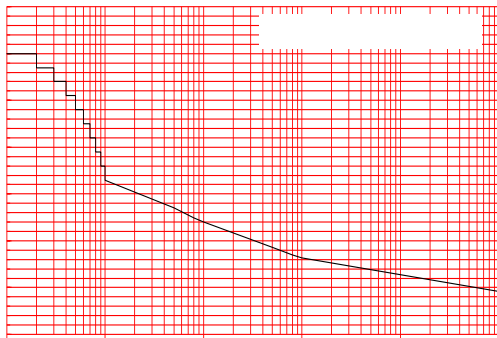


FIG.4: On-state characteristics

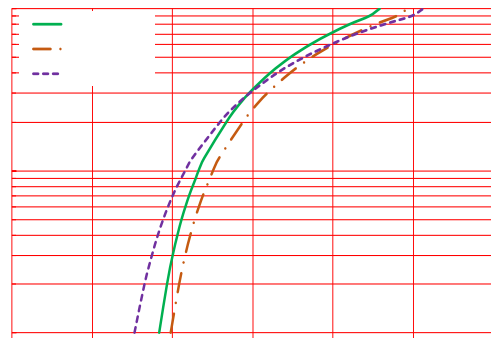
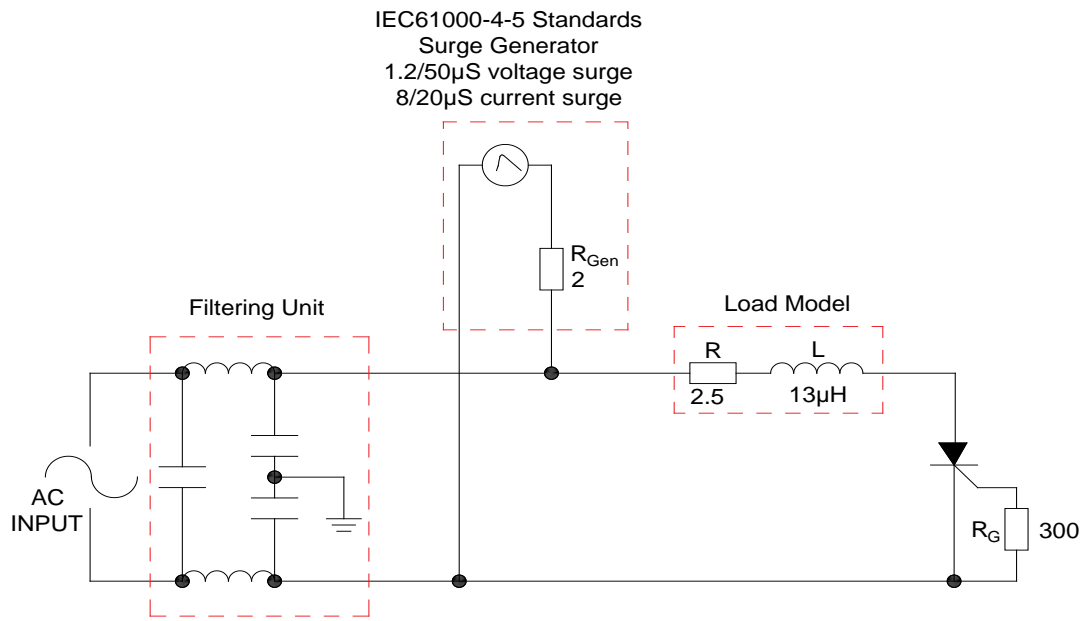


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p -riG.5:

FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards.



SHAPING AND SOLDERING PARAMETERS

Refer to Instructions for installation of plastic-sealed in-line power devices released by JieJie

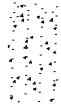
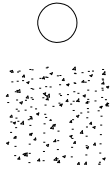
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
TYN08H-800C	800	15	TO-220C	50	Tube


Document Revision History

Date	Revision	Changes
Apr.13, 2023	A.1.0	Last update

PACKAGE MECHANICAL DATA



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