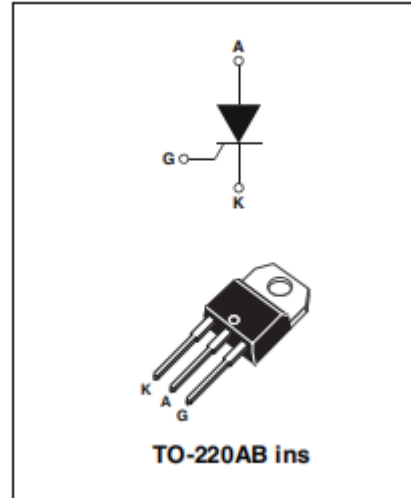


YZPST-TYN616 16A 600V SCRs
DESCRIPTION:

Glass passivated thyristors in a plastic envelope, The YZPST-TYN616 SCRs series is suitable to fit all modes of control, found in applications such as overvoltage crowbar protection, motor control circuits in power tools and kitchen aids, inrush current limiting circuits, capacitive discharge ignition, Soft start AC

MAIN FEATURES


Symbol	Value	Unit
$I_{T(RMS)}$	16	A
V_{DRM} V_{RRM}	600	V
I_{GT}	40	mA

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40 ~150	°C
Operating junction temperature range	T_j	-40~125	°C
Repetitive peak off-state voltage (T =25°C)	V_{DRM}	600	V
Repetitive peak reverse voltage (T =25°C)	V_{RRM}	600	V
RMS on-state current (T =84°C)	$I_{T(RMS)}$	16	A
Average on-state current (T =100°C)	$I_{T(AV)}$	10	A
Non repetitive surge peak on-state current(tp=10ms)	I_{TSM}	200	A
I ² t value for fusing (tp=10ms)	I ² t	260	A ² S
Critical rate of rise of on-state current (I =2×IGT, tr ≤ 100 ns)	di/dt	50	A/μS
Peak gate current	I_{GM}	4	A
Average gate power dissipation	$P_{G(AV)}$	1	W

ELECTRICAL CHARACTERISTICS (T=25°C unless otherwise specified)

Symbol	Test Condition		Value	Unit
I_{GT}	$V = 12V \ R = 140\Omega$	MAX.	40	mA
V_{GT}		MAX.	1.3	V
V_{GD}	$V_D = V_{DRM} \ T_j = 125^\circ C \ R = 1K\Omega$	MIN.	0.2	V
I_L	$I_G = 1.2I_{GT}$	MAX.	150	mA
I_H	$I_T = 50mA$	MAX.	100	mA
dV/dt	$V_D = 2/3V_{DRM} \ \text{Gate Open} \ T_j = 125^\circ C$	MIN.	1000	V/ μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM} = 50A \ t_p = 380\mu s$	$T_j = 25^\circ C$	1.6	V
I_{DRM}	$V_D = V_{DRM} \ V_R = V_{RRM}$	$T_j = 25^\circ C$	20	μA
I_{RRM}		$T_j = 125^\circ C$	4	mA

Thermal Resistances

Symbol	Parameter	Value	Unit
$R_{th(j-a)}$	junction to ambient	60	$^\circ C/W$
$R_{th(j-c)}$	Junction to case	2.0	



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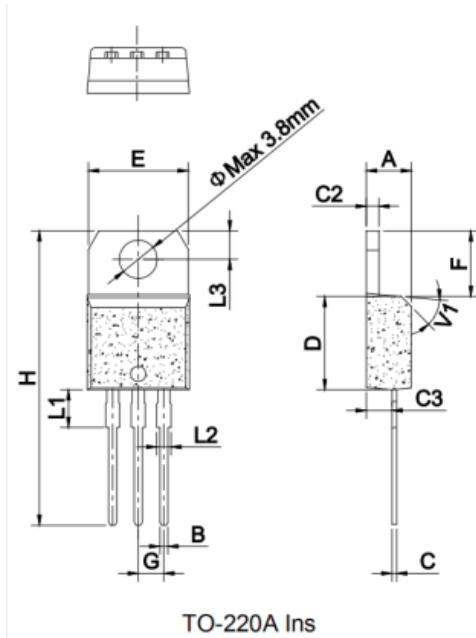
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TO-220A Ins. Package Mechanical Data



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.61		0.88	0.024		0.035
C	0.46		0.70	0.018		0.028
C2	1.21		1.32	0.048		0.052
C3	2.40		2.72	0.094		0.107
D	8.60		9.70	0.339		0.382
E	9.80		10.4	0.386		0.409
F	6.55		6.95	0.258		0.274
G		2.54			0.1	
H	28.0		29.8	1.102		1.173
L1		3.75			0.148	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
V1		45°			45°	



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