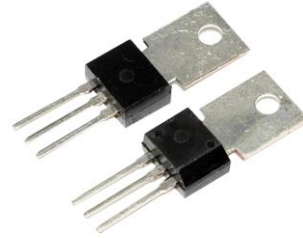


DESCRIPTION:
YZPST-X0405

Thanks to highly sensitive triggering levels, the X0405 SCR series is suitable for all applications where the available gate current is limited, such as ground fault circuit interruptors, overvoltage crowbar protection in low power supplies, capacitive ignition circuits, ...


MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	4.0	A
V_{DRM} V_{RRM}	600	V
I_{GT}	200	μA

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40 ~ 150	$^{\circ}C$
Operating junction temperature range	T_j	-40~125	$^{\circ}C$
Repetitive peak off-state voltage ($T = 25^{\circ}C$)	V_{DRM}	600	V
Repetitive peak reverse voltage ($T = 25^{\circ}C$)	V_{RRM}	600	V
Non repetitive surge peak Off-state voltage	V_{DSM}	$V_{DRM} + 100$	V
Non repetitive peak reverse voltage	V_{RSM}	$V_{RRM} + 100$	V
RMS on-state current ($T = 60^{\circ}C$)	$I_{T(RMS)}$	4.0	A
Non repetitive surge peak on-state current (180 °conduction angle, $F=50Hz$)	I_{TSM}	30	A
Average on-state current (180 °conduction angle)	$I_{T(AV)}$	2.5	A
I^2t value for fusing ($t_p=10ms$)	I^2t	4.5	A^2S
Critical rate of rise of on-state current ($I = 2 \times I_{GT}$, $t_r \leq 100 ns$)	dI/dt	50	$A/\mu S$
Peak gate current	I_{GM}	1.2	A
Average gate power dissipation	$P_{G(AV)}$	0.2	W

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

Symbol	Test Condition		Value	Unit
I _{GT}	V =12V R =140Ω	MAX.	200	μA
V _{GT}		MAX.	0.8	V
V _{GD}	V _D =V _{DRM} T _j =125°C R=1KΩ	MIN.	0.1	V
I _L	I _G =1.2I _{GT}	MAX.	6	mA
I _H	I _T =50mA	MAX.	5	mA
dV/dt	V _D =2/3V _{DRM} Gate Open T _j =125°C	MIN.	15	V/μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V _{TM}	I _{TM} =8.0A tp=380μs	T _j =25°C	1.8	V
I _{DRM}	V _D =V _{DRM} V _R =V _{RRM}	T _j =25°C	5	μA
I _{RRM}		T _j =125°C	1	mA

Thermal Resistances

Symbol	Parameter	Value(MAX.)	Unit
R _{th(j-a)}	junction to ambient	60	°C/W
R _{th(j-t)}	Junction to tab (DC)	20	

Ordering information scheme
