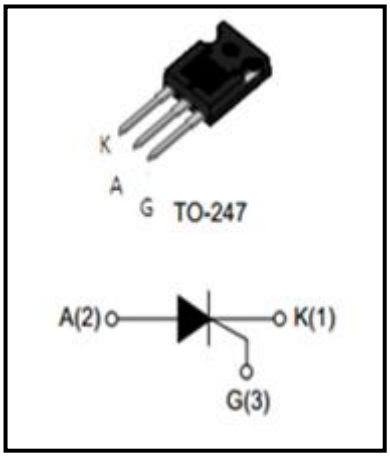
YZPST-40TPS12

●Product features

Table glass passivation process,

The back (anode) electrode metal: Ti-Ni-Ag

The Positive (gate, anode) electrode metal: AL



●The main purposes

Alternating current switch,
AC DC power converter,

The control of electric heating

Motor speed control

● Package

TO-247

●Main Feature（Tj=25℃）

Symbol	Value	Unit
$I_{T(RMS)}$	40	A
V_{DRM} / V_{RRM}	1200	V
I_{GT}	≤35	mA

●Absolute ratings (Limiting Values)

Symbol	Parameter	Value	Unit
$I_{T(RMS)}$	RMS on-state current (180° conduction angle)	40	A
I_{TSM}	Non repetitive surge peak on-state Current (tp=10ms)	460	A
I_{GM}	Peak gate current(tp=20us)	4	A
P_{GM}	Peak gate power	5	W
$P_{G(AV)}$	Average gate power	1	W
Tstg Tj	Storage temperature Operating junction temperature	-40--+150 -40--+125	℃

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●Thermai Resistances

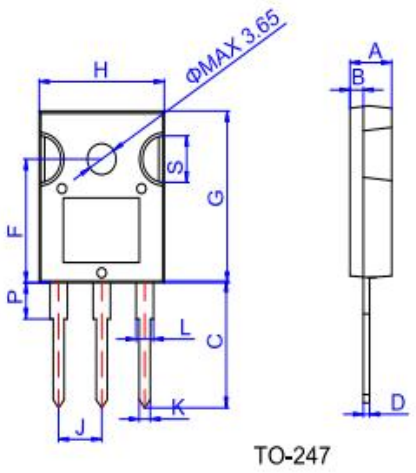
Symbol	Parameter		Value	Unit
Rth (j-c)	Junction to case	TO-247	0.95	℃/W

●Electrical characteristics (Tj=25℃ unless otherwise stated)

Symbol	Test Conditions		Value			Unit
			Min	Type	Max	
I_{GT}	V_D=12V, R_L=33Ω		----	-----	35	mA
V_{GT}	V_D=12V, R_L=33Ω		-----	-----	1.5	V
V_{GD}	V_D=V_{DRM}, R_L=3.3KΩ, R_{GK}=1KΩ,Tj=125℃		0.2	-----	-----	V
I_H	I_T=500mA		-----	-----	75	mA
I_L	I_G=1.2I_{GT}		-----	-----	150	mA
dV/dt	V_D=67%V_{DRM}, GateOpen, Tj=110℃		1000	-----	-----	v/μs
V_{TM}	I_T=80A,tp=380μs		-----	-----	1.6	V
dI/dt	I_G=2I_{GT}		50	-----	-----	A/μs
I^2T	Tp=10ms		-----	-----	1060	A^2S
I_{DRM}	V_D=V_{DRM}	T_j=25℃	-----	-----	10	μA
		T_j=125℃	-----	-----	4	mA
I_{RRM}	V_R=V_{RRM}	T_j=25℃	-----	-----	10	μA
		T_j=125℃	-----	-----	4	mA

●Measure of package

(TO-247)



TO-247

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.9		5.4	0.193		0.213
B	1.6		2.0	0.063		0.079
C	14.35		15.4	0.565		0.606
D	0.5		0.8	0.020		0.031
F	14.4		15.1	0.567		0.594
G	19.7		20.6	0.775		0.811
H	15.4		16.2	0.606		0.638
J	5.3		5.6	0.209		0.220
K	1.3		1.5	0.051		0.059
L	2.8		3.3	0.110		0.130
P	3.7		4.2	0.146		0.165
S	5.35		5.65	0.211		0.222