

PST ZPI17-16A

AVALANCHE DIODE

Features

- Blocking Capability up to 1600 V
- Stud Cathode Version

ELECTRICAL CHARACTERISTICS AND RATINGS

Blocking

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Repetitive peak reverse voltage	V_{RRM}		1600		V	$T_j = -40\text{ °C to }180\text{ °C}$
Non repetitive peak reverse voltage	V_{RSM}		1700		V	$T_j = -40\text{ °C to }180\text{ °C}$
Repetitive peak reverse current	I_{RRM}		4		mA	$T_j = T_{jmax}, V = V_{RRM}$

Conducting

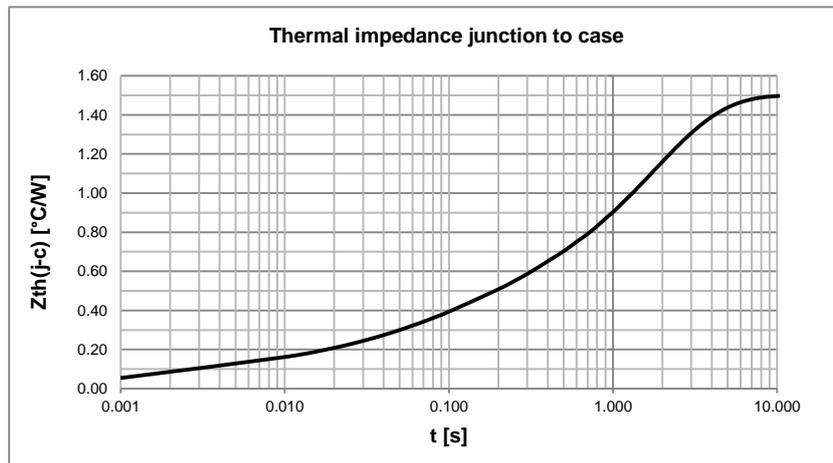
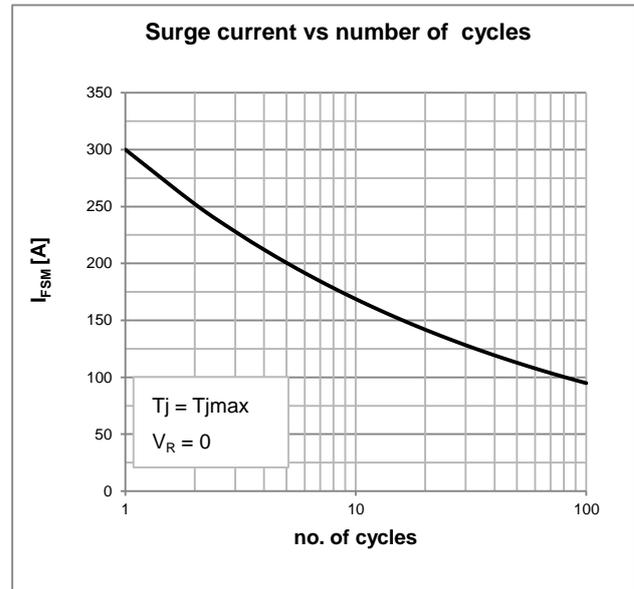
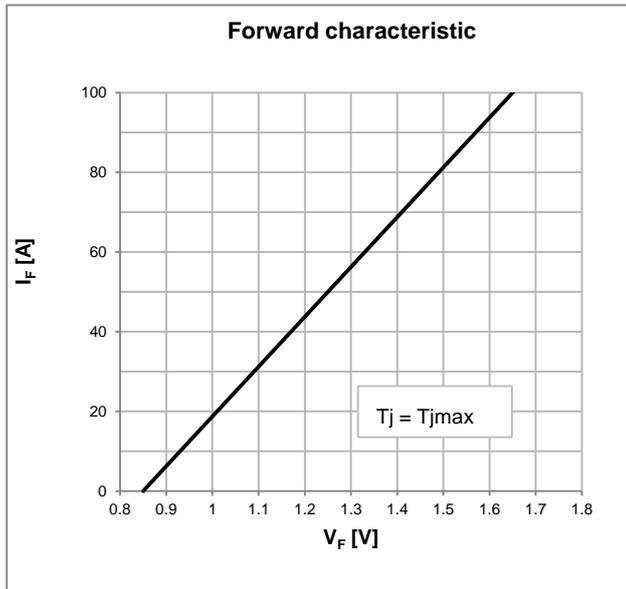
Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Average value of forward current	$I_{F(AV)}$		25		A	50 Hz sinewave, 180° conduction, $T_c = 125\text{ °C}$
RMS value of forward current	$I_{F(RMS)}$		40		A	50 Hz sinewave, 180° conduction, $T_c = 35\text{ °C}$
Peak one cycle surge (non repetitive) current	I_{FSM}		0.3		kA	50 Hz sinewave, 180° conduction, $T_j = T_{jmax}, V_R = 0$
I square t	$I^2 t$		0.5		kA^2s	$T_j = T_{jmax}$
Peak forward voltage	V_{FM}		1.29		V	Forward current 55 A, $T_j = T_{jmax}$
Threshold voltage	$V_{F(TO)}$		0.85		V	$T_j = T_{jmax}$
Forward slope resistance	r_F		8.0		mΩ	$T_j = T_{jmax}$

Thermal and mechanical characteristics and ratings

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	T_j	-40	180		°C	
Storage temperature	T_{stg}	-40	180		°C	
Thermal resistance junction to case	$R_{th(j-c)}$		1.50		°C/W	180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.60		°C/W	Mounting surfaces smooth, flat and greased
Mounting torque	M	2.2	2.8		N·m	
Weight	W			6	g	

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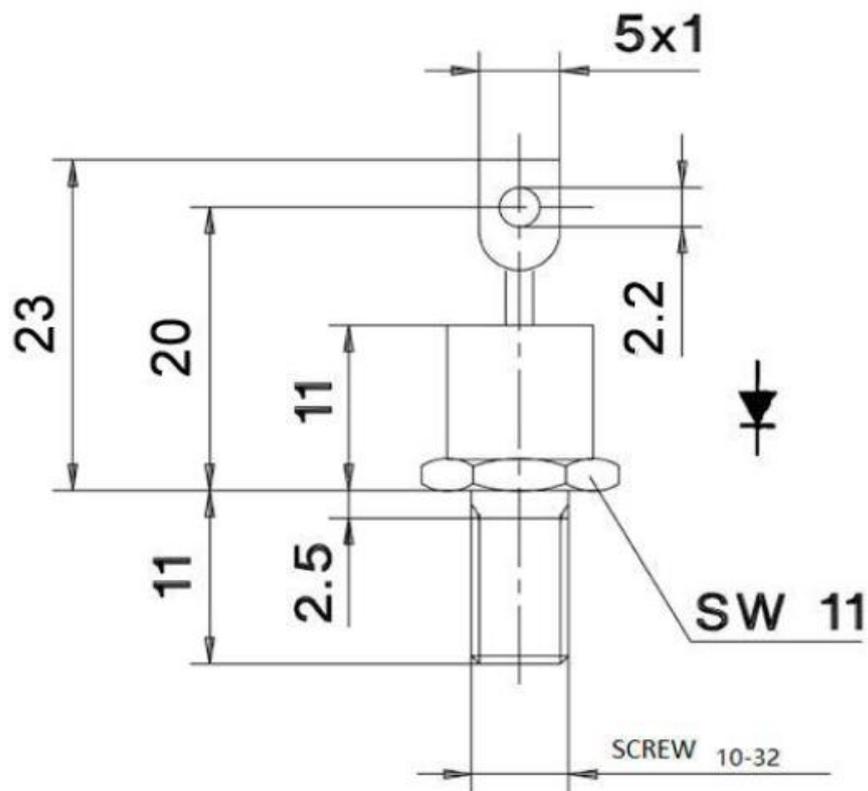
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OUTLINE AND DIMENSIONS



dimensions in mm