

## PST ZP609LT

### WELDING DIODE

#### Features

- Blocking Capability up to 400 V
- High Surge Rating
- Rugged Ceramic Hermetic Package

#### ELECTRICAL CHARACTERISTICS AND RATINGS

#### Blocking

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Repetitive peak reverse voltage	$V_{RRM}$		400		V	$T_j = -40\text{ °C to }190\text{ °C}$
Non repetitive peak reverse voltage	$V_{RSM}$		500		V	$T_j = -40\text{ °C to }190\text{ °C}$
Repetitive peak reverse current	$I_{RRM}$		60		mA	$T_j = T_{jmax}$ , $V = V_{RRM}$

#### Conducting

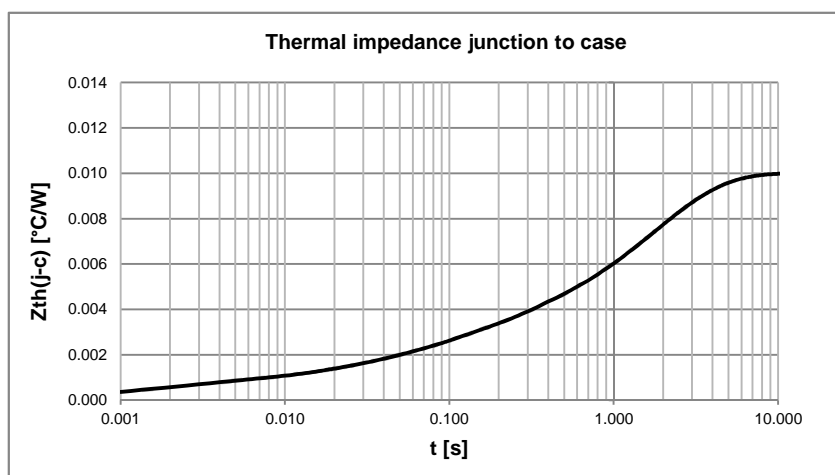
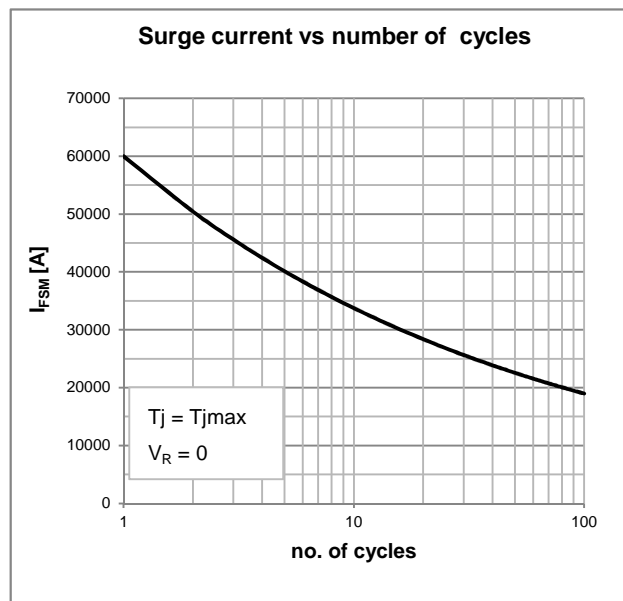
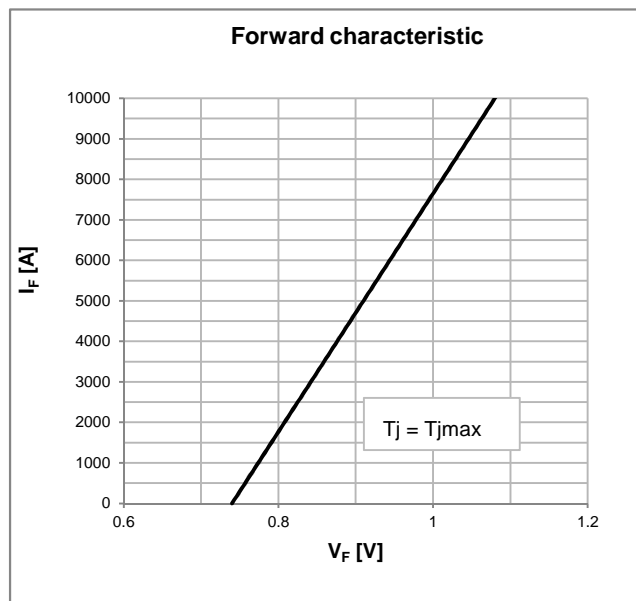
Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Average value of forward current	$I_{F(AV)}$		7590		A	50 Hz sinewave, 180° conduction, $T_c = 85\text{ °C}$
RMS value of forward current	$I_{F(RMS)}$		11200		A	50 Hz sinewave, 180° conduction, $T_c = 85\text{ °C}$
Peak one cycle surge (non repetitive) current	$I_{FSM}$		60		kA	50 Hz sinewave, 180° conduction, $T_j = T_{jmax}$ , $V_R = 0$
I square t	$I^2 t$		18000		$kA^2s$	$T_j = T_{jmax}$
Peak forward voltage	$V_{FM}$		0.90		V	Forward current 4500 A, $T_j = T_{jmax}$
Threshold voltage	$V_{F(TO)}$		0.74		V	$T_j = T_{jmax}$
Forward slope resistance	$r_F$		0.034		mΩ	$T_j = T_{jmax}$

#### Thermal and mechanical characteristics and ratings

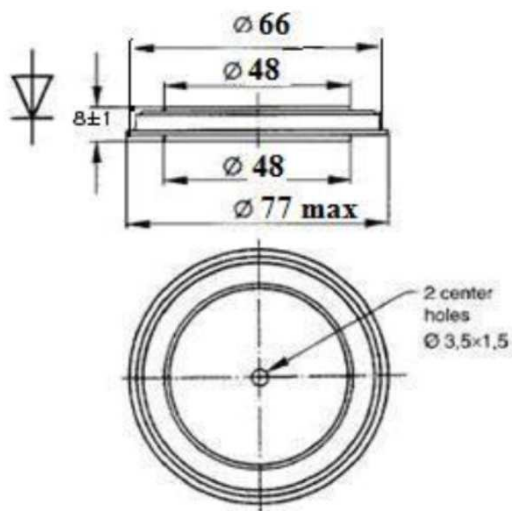
Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	$T_j$	-40	190		°C	
Storage temperature	$T_{stg}$	-40	190		°C	
Thermal resistance junction to case	$R_{th(j-c)}$		0.010		°C/W	Double side cooled, 180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.004		°C/W	Mounting surfaces smooth, flat and greased
Mounting force	$F$	19	26		kN	
Weight	$W$			200	g	

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## OUTLINE AND DIMENSIONS



- All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink surfaces with flatness < 0.03 mm and roughness < 2 $\mu$ m