

PST ZK261

FAST RECOVERY DIODE

Features

- Blocking Capability up to 3300 V
- Soft Reverse Recovery
- Rugged Ceramic Hermetic Package

ELECTRICAL CHARACTERISTICS AND RATINGS

Blocking

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Repetitive peak reverse voltage	V_{RRM}		3300		V	$T_j = -40\text{ °C to }125\text{ °C}$
Non repetitive peak reverse voltage	V_{RSM}		3400		V	$T_j = -40\text{ °C to }125\text{ °C}$
Repetitive peak reverse current	I_{RRM}		50		mA	$T_j = T_{jmax}, V = V_{RRM}$

Conducting

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Average value of forward current	$I_{F(AV)}$		100		A	50 Hz sinewave, 180° conduction, $T_c = 85\text{ °C}$
RMS value of forward current	$I_{F(RMS)}$		157		A	50 Hz sinewave, 180° conduction, $T_c = 85\text{ °C}$
Peak one cycle surge (non repetitive) current	I_{FSM}		3.0		kA	50 Hz sinewave, 180° conduction, $T_j = T_{jmax}, V_R = 0$
I square t	$I^2 t$		45		kA^2s	$T_j = T_{jmax}$
Peak forward voltage	V_{FM}		3.6		V	Forward current 100 A, $T_j = T_{jmax}$
Threshold voltage	$V_{F(TO)}$		2.4		V	$T_j = T_{jmax}$
Forward slope resistance	r_F		11.5		$m\Omega$	$T_j = T_{jmax}$

Thermal and mechanical characteristics and ratings

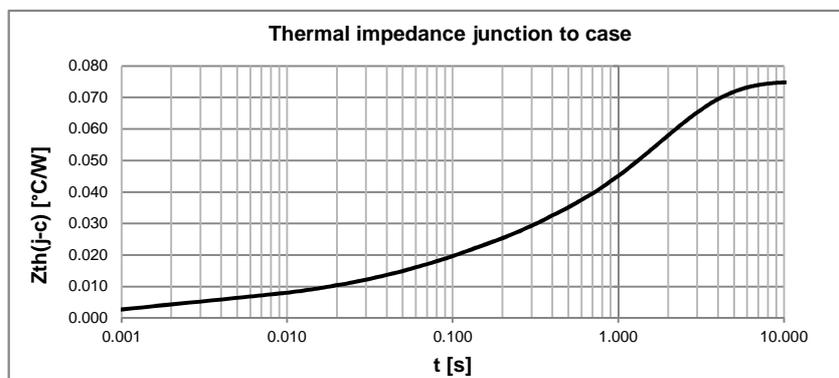
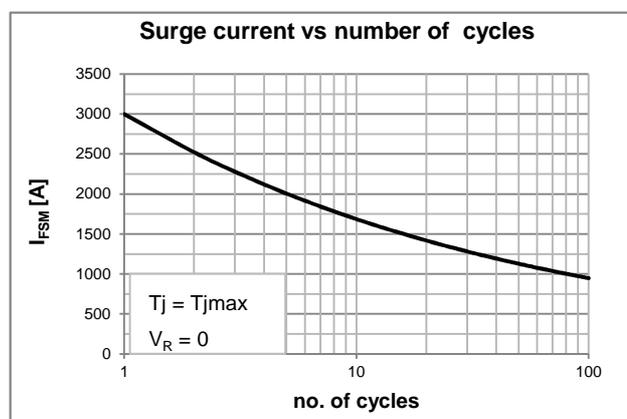
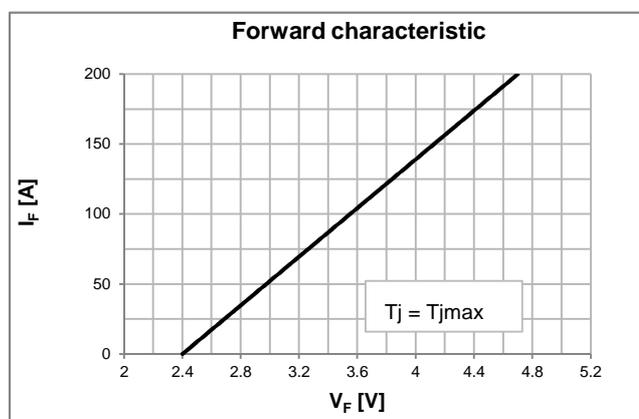
Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Operating temperature	T_j	-40	125		°C	
Storage temperature	T_{stg}	-40	125		°C	
Thermal resistance junction to case	$R_{th(j-c)}$		0.075		°C/W	Double side cooled, 180° SIN
Thermal resistance case to sink	$R_{th(c-s)}$		0.020		°C/W	Mounting surfaces smooth, flat and greased
Mounting force	F	4.5	5.5		kN	
Weight	W			55	g	

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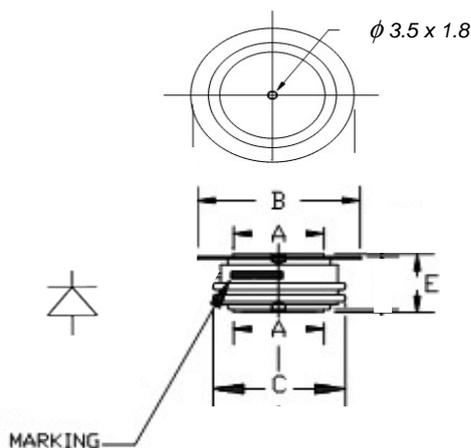
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Switching

Parameter	Symbol	Min	Max	Typ	Unit	Conditions
Reverse recovery current	I_{rr}		90		A	$I_F = 400$ A $di_F / dt = 100$ A/ μ s $V_R = 50$ V $T_j = T_{jmax}$
Reverse recovery charge	Q_{rr}		45		μ C	
Reverse recovery time	t_{rr}		1.0		μ s	
Softness	s	0.5				



OUTLINE AND DIMENSIONS



	A	B	C	E
mm	19	42	37	14 ± 0.5

- 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 μ m