



RUNAU

Jiangsu Runau Electronics Manufacturing Co.,Ltd

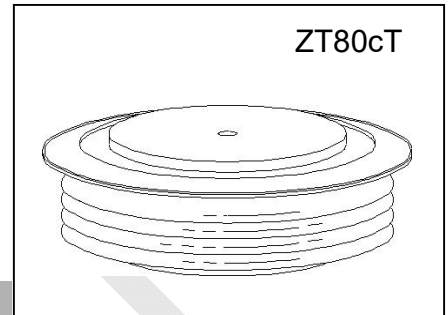
ZK2500-Rectifier Diode

2000~3000 V_{RRM}

FAST RECOVERY RECTIFIER

Features:

- . All diffused structure
- . High surge rating
- . Blocking capability up to 3000 volts
- . Soft recovery
- . Ceramic housing hermetic package
- . Pressure assembled device



ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

Device Type	V_{RRM} (1)	V_{RSM} (1)
ZK2500-20	2000	2200
ZK2500-22	2200	2400
ZK2500-24	2400	2600
ZK2500-26	2600	2800
ZK2500-28	2800	3000
ZK2500-30	3000	3200

V_{RRM} = Repetitive peak reverse voltage

V_{RSM} = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage current	I_{RRM}	15 mA 80 mA (3)
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Notes:

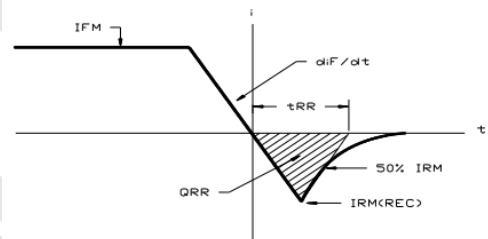
All ratings are specified for $T_j=25^\circ\text{C}$, unless otherwise stated

(1) All voltage ratings are specified for an applied 50Hz/60Hz sinusoidal waveform over the temperature range -40 to $+125^\circ\text{C}$.

(2) 10 msec. max. pulse width

(3) Maximum value for $T_j = 125^\circ\text{C}$.

(4) See parameter definition below :



REVERSE RECOVERY CHARACTERISTIC

Conducting - on state

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Average forward current	$I_{F(AV)}$		2500		A	Sinewave 180° , $T_c = 70^\circ\text{C}$
RMS forward current	I_{FRMS}		3925		A	
Peak one cycle surge (non repetitive) current	I_{FSM}		38000		A	10 msec (50Hz), sinusoidal wave-shape, 180° conduction, $T_j = 125^\circ\text{C}$
I square t	I^2t		7220000		A^2s	8.3 msec and 10.0 msec
Peak forward voltage	V_{FM}		2.40		V	$I_{FM} = 3000\text{A}$; Duty cycle $\leq 0.01\%$
Reverse Recovery Current (4)	$I_{RM(REC)}$		*		A	$I_{FM} = 1000\text{A}$; $dIF/dt = 10\text{ A}/\mu\text{s}$; T_{jmax}
Reverse Recovery Charge (4)	Q_{rr}		*		μC	$I_{FM} = 1000\text{A}$; $dIF/dt = 10\text{ A}/\mu\text{s}$; T_{jmax}
Reverse Recovery Time (4)	t_{rr}		8		μs	$I_{FM} = 1000\text{A}$; $dIF/dt = 10\text{ A}/\mu\text{s}$; T_{jmax}

* For guaranteed maximum values, contact factory

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-40	+125		°C	
Storage temperature	T_{stg}	-40	+125		°C	
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.010		°C/W	Double sided cooled (1) @ 2000 lb.; (2) @800 lb.
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.020		°C/W	Single sided cooled (1) @ 2000 lb.; (2) @800 lb.
Thermal resistance - case to heatsink	$R_{\Theta(c-s)}$		0.003 0.006		°C/W	Double sided cooled * Single sided cooled *
Mounting force	P			35	kN	
Weight	W			1.10	kg	

* Mounting surfaces smooth, flat and greaseless

CASE OUTLINE AND DIMENSIONS

