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Runau Electronics(Yangzhou)Manufacturing Co.,Ltd

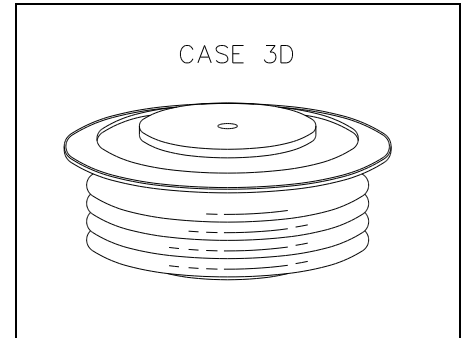
YA640 - Standard Rectifier

1200 - 2200 V_{RRM} ; 1500 A avg

HIGH POWER STANDARD RECTIFIER

Features:

- . All Diffused Structure
- . Blocking capability up to 2200 volts
- . Soft Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device



ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

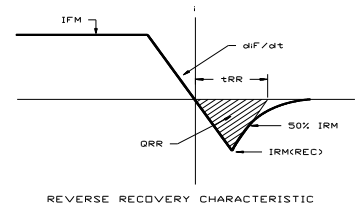
Device Type	V_{RRM} (1)	V_{RSM} (1)
YA640PB	1200	1400
YA640PD	1400	1600
YA640PM	1600	1800
YA640PN	1800	2000
YA640LA	2000	2200
YA640LB	2200	2400

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

Repetitive peak reverse leakage	I_{RRM}	10 mA 50 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 $+185^\circ\text{C}$.
 (2) 10 msec. max. pulse width
 (3) Maximum value for $T_j = 185^\circ\text{C}$.
 (4) See parameter definition below :



Conducting - on state

Parameter	Symbol	Min.	Max.	Typ	Units	Conditions
Average value of on-state current	$I_{F(AV)}$		1500		A	Sinewave, 180° conduction, $T_c = 95^\circ\text{C}$
RMS value of on-state current	I_{FRMS}		2300		A	Nominal value
Peak one cycle surge (non repetitive) current	I_{FSM}		17000 15000		A A	8.3 msec (60Hz), sinusoidal wave-shape, 180° conduction, $T_j = 160^\circ\text{C}$ 10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, $T_j = 160^\circ\text{C}$
I square t	I^2t		1350000		A^2s	8.3 msec and 10.0 msec
Peak on-state voltage	V_{FM}		1.09		V	$I_{FM} = 1000$ A; Duty cycle $\leq 0.01\%$; $T_j = 160^\circ\text{C}$
Reverse Recovery Current (4)	$I_{RM(REC)}$		140		A	$I_{FM} = 1000$ A; $dI_F/dt = 25$ A/ μs ; $T_j = 125^\circ\text{C}$
Reverse Recovery Charge (4)	Q_{rr}		*		μC	$I_{FM} = 1000$ A; $dI_F/dt = 25$ A/ μs ; T_{jmax}
Reverse Recovery Time (4)	t_{RR}		*		μs	

* For guaranteed maximum values, contact factory

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-40	+185		°C	
Storage temperature	T_{stg}	-40	+185		°C	
Thermal resistance - junction to case	$R_{\theta(j-c)}$		0.043 0.086		°C/W	Double sided cooled Single sided cooled
Thermal resistance - case to sink	$R_{\theta(c-s)}$.015 .030		°C/W	Double sided cooled * Single sided cooled *
Mounting force	P	3500 15.5	4500 19.9		lb. kN	
Weight	W			N/A	oz. g	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS

