



R A E

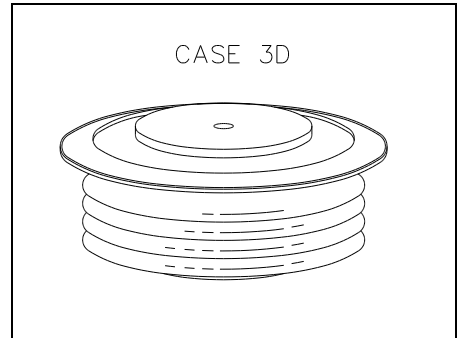
Runau Electronics(Yangzhou)Manufacturing Co.,Ltd 1800 - 2600 V_{RRM}; 1500 A avg

YA641-Standard Rectifier

HIGH POWER STANDARD RECTIFIER

Features:

- . All Diffused Structure
- . Blocking capability up to 2600 volts
- . Soft Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device



ELECTRICAL CHARACTERISTICS AND RATINGS

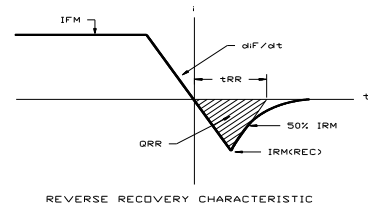
Reverse Blocking

Device Type	V _{RRM} (1)	V _{RSM} (1)
YA641PN	1800	1800
YA641L	2000	2000
YA641LB	2200	2200
YA641LD	2400	2400
YA641LE	2500	2500
YA641LM	2600	2600

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 °C unless otherwise stated.
 (1) All voltage ratings are specified for an applied 50Hz/60Hz sinusoidal waveform over the temperature range -40 to +185 °C.
 (2) 10 msec. max. pulse width
 (3) Maximum value for T_j = 185°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 °C
RMS value of on-state current	I _{FRMS}		2300		A	Nominal value
Peak one cycle surge (non repetitive) current	I _{FSM}		17000		A	8.3 msec (60Hz), sinusoidal wave-shape, 180° conduction, T _j = 160 °C
			15000		A	10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, T _j = 160 °C
I square t	I ² t		1350000		A ² s	8.3 msec and 10.0 msec
Peak on-state voltage	V _{FM}		0.99		V	I _{FM} = 1000 A; Duty cycle ≤ 0.01%; T _j = 160°C
Reverse Recovery Current (4)	I _{RM(REC)}		160		A	I _{FM} = 1000 A; dI _F /dt = 25 A/μs; T _j = 125°C
Reverse Recovery Charge (4)	Q _{rr}		*		μC	I _{FM} = 1000 A; dI _F /dt = 25 A/μs; T _j max
Reverse Recovery Time (4)	t _{RR}		*		μs	

* For guaranteed maximum values, contact factory

THERMAL AND MECHANICAL CHARACTERISTICS

YA641 - Standard Rectifier

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			9 225	oz. g	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS

