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Runau Electronics(Yangzhou)Manufacturing Co.,Ltd

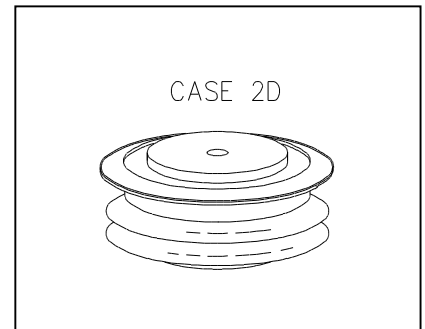
YA540-Standard Rectifier

2000 - 2400 V_{RRM} ; 1000 A avg

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:

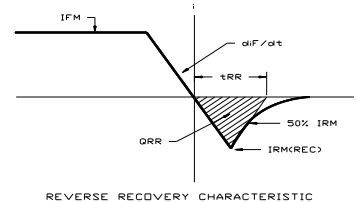
All ratings are specified for $T_j=25^\circ\text{C}$ unless otherwise stated.

(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 :



REVERSE RECOVERY CHARACTERISTIC

Conducting - on state

Parameter	Symbol	Min.	Max.	Typ	Units	Conditions
Average value of on-state current	$I_{F(AV)}$		1000		A	Sinewave, 180° conduction, $T_c = 95^\circ\text{C}$
RMS value of on-state current	I_{FRMS}		1570		A	Nominal value
Peak one cycle surge (non repetitive) current	I_{FSM}		12000		A	8.3 msec (60Hz), sinusoidal wave-shape, 180° conduction, $T_j = 160^\circ\text{C}$
			11500		A	10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, $T_j = 160^\circ\text{C}$
I square t	I^2t		597000		A^2s	8.3 msec and 10.0 msec
Peak on-state voltage	V_{FM}		1.08		V	$I_{FM} = 1000$ A; Duty cycle $\leq 0.01\%$; $T_j = 160^\circ\text{C}$
Reverse Recovery Current (4)	$I_{RM(REC)}$		*		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	$R_{\theta(j-c)}$		0.06 0.012		°C/W	Double sided cooled Single sided cooled
Thermal resistance - case to sink	$R_{\theta(c-s)}$.020 .040		°C/W	Double sided cooled * Single sided cooled *
Mounting force	P	2000 8.9	2400 10.8		lb. kN	
Weight	W			9 225	oz. g	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS

DIMENSIONS	Min. mm	Max. mm	Min. In.	Max. In.
DIAM A	24.89	25.40	0.98	1.00
DIAM B	40.64	42.16	1.60	1.65
DIAM C	--	40.39	--	1.59
D	0.76	--	0.03	--
E	13.72	15.24	0.54	0.60
F	3.30	3.81	0.13	0.15
G	1.78	2.03	0.07	0.08

STRIKE DISTANCE = .38 INCH / 9.6 MM MIN.
CREEPAGE DISTANCE = .58 INCH / 14.7 MM MIN.