



Ruttonsha International Rectifier Ltd.

ULTRA FAST RECOVERY DIODE MODULE

RIRP 400 / 06F

FEATURES

- * Fully molded package to prevent humidity penetration.
- * Low leakage current and low forward voltage.
- * Surge overload ratings to 1400Amps.
- * Glass passivated chip junctions.
- * Non - Isolated Module

MECHANICAL DATA

- * Case : Epoxy molded double diode construction.
- * Base plate : Nickel Plated.

MAJOR RATINGS & CHARACTERISTICS

Parameters	RIRP 400...F	Units
$I_{F(AV)}$ @ $T_C = 85^\circ\text{C}$	400	A
I_{FSM} $T_C = 25^\circ\text{C}$	2880	A
V_{RRM} range	UP TO 600	V
T_J	- 40 TO 150	$^\circ\text{C}$
Qrr	830	nC

ULTRA FAST RECOVERY DIODE MUDULE

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ELECTRICAL SPECIFICATION

VOLTAGE RATINGS

Type Number	Voltage Code	V_{RRM} , max. repetitive peak reverse and off-state voltage blocking voltage V	V_{RSM} , max. non-repetitive peak reverse voltage V	I_{RRM} max. @ μA	
				25°C	125°C
RIRP 400 ...F	06	600	700	5	500

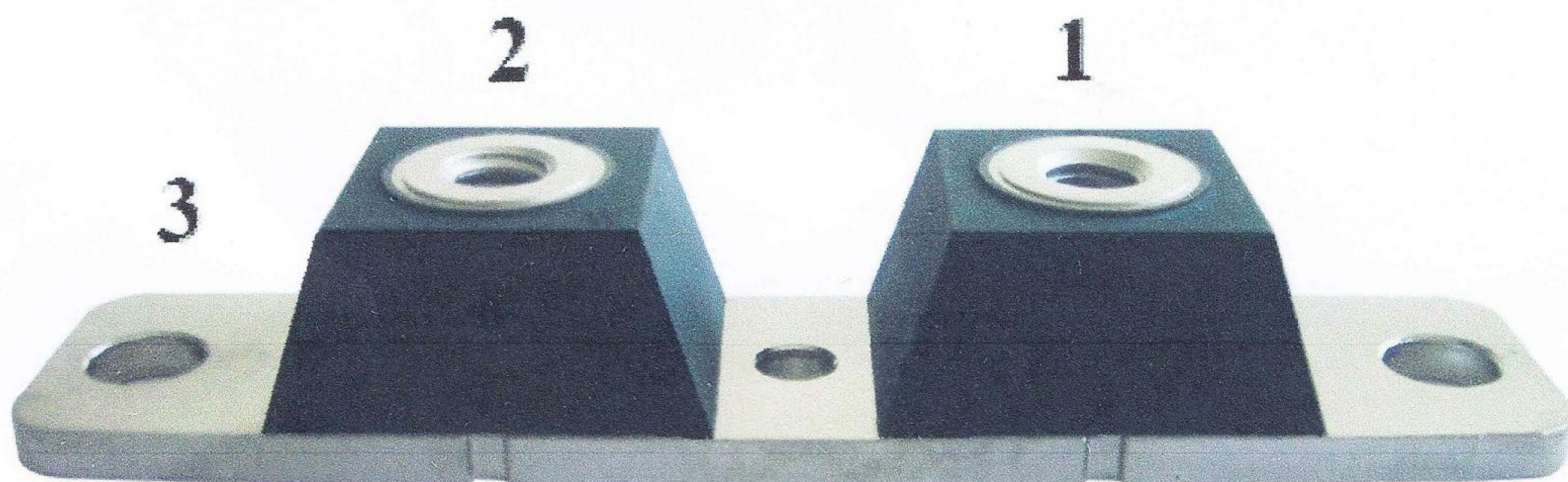
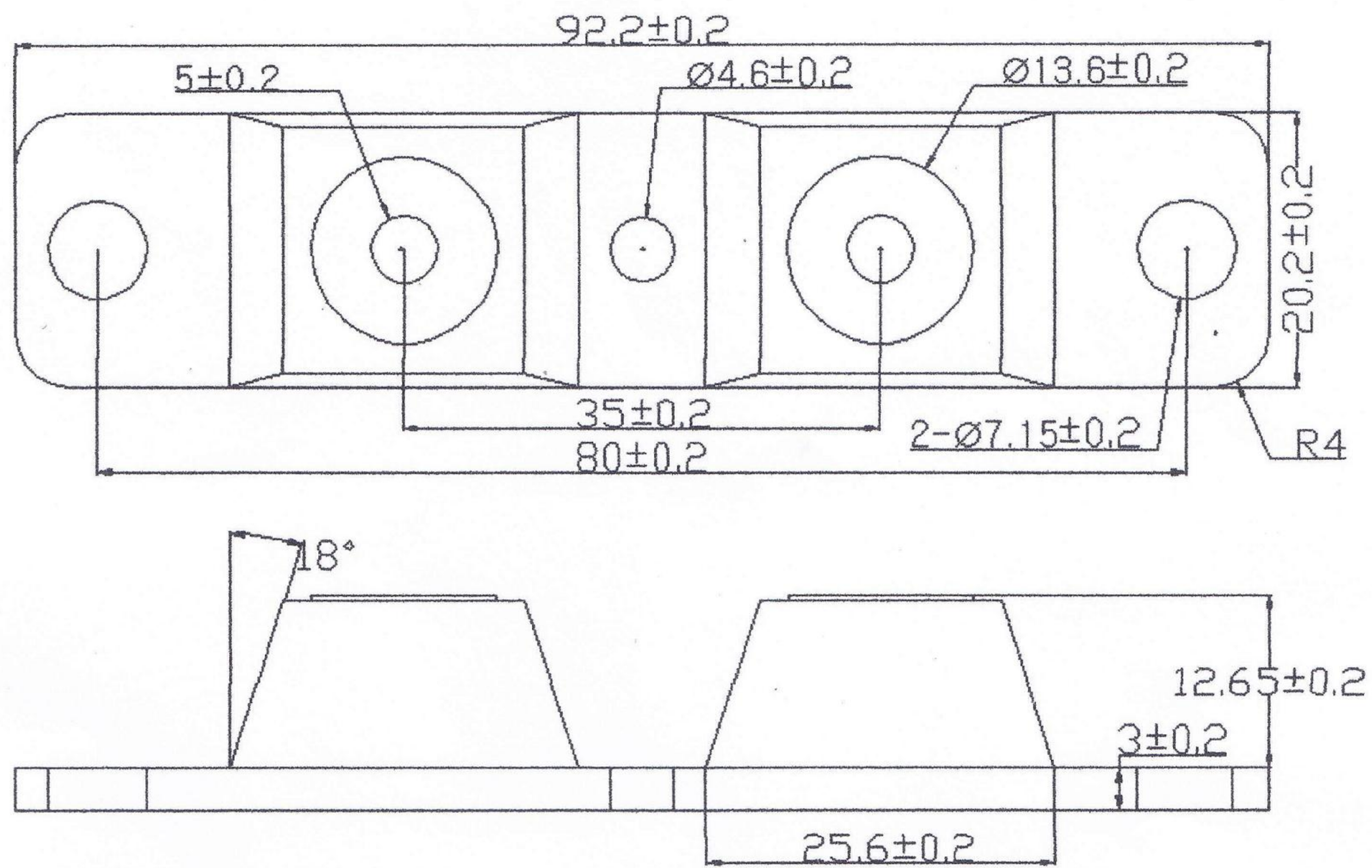
FORWARD CONDUCTION

	Parameters	RIRP 400 ...F		Units	Conditions
$I_{F(DC)}$	Continuous Forward Current per Diode	480		A	$T_c = 25^\circ C$
I_{FSM}	Max. peak, one cycle forward non-repetitive surge current	2880		A	
V_{FM}	Max. forward voltage drop	Typ. 1.1 1.2	Max, 1.32 1.70	V V	$T_c = 25^\circ C$ $I_F = 200A,$ $I_F = 400A$
trr	Reverse recovery time	90		ns	$I_F = 50 A, 500 A/micro - S, V_R = 200 V, T_J = 25^\circ C$

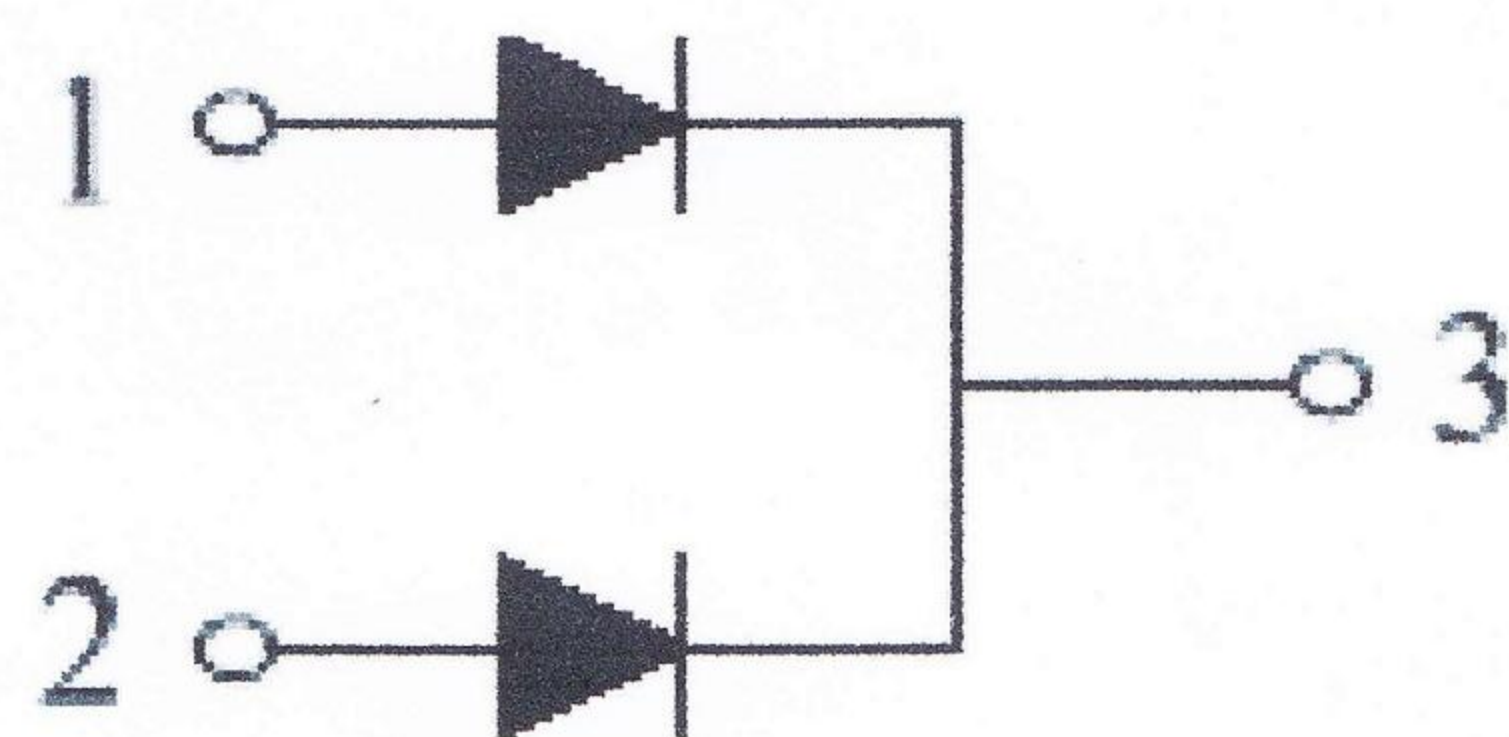
THERMAL AND MECHANICAL SPECIFICATIONS

	Parameters	RIRP 400 ...F	Units	Conditions
T_J	Junction operating temperature	- 40 to 150	$^\circ C$	
T_{stg}	Storage temperature range	- 40 to 175	$^\circ C$	
R_{thj-c}	Max. internal thermal resistance, junction to case Per Diode Per Module	0.19 0.095	$^\circ C/W$	
T	Mounting torque	4.5	Nm	Recommended Torque 3.5 Nm
Wt	Approximate weight	68	g	

Outside Dimension



CIRCUIT



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OUTLINE DIAGRAM

