



FRED Modules

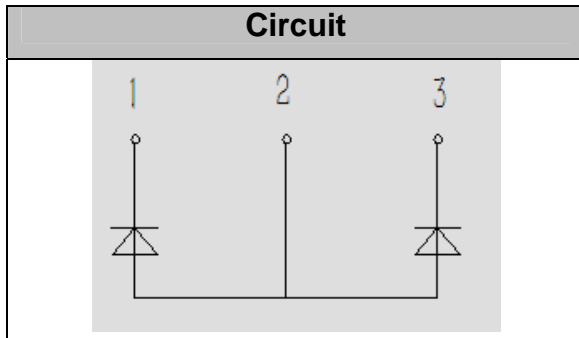
VRRM 600V
IFAV 300 A

Applications

Inversion Welder
Uninterruptible Power Supply (UPS)
Plating Power Supply
Ultrasonic Cleaner and Welder
Power Factor Correction (PFC) Circuit
Converter & Chopper

Features

Soft Reverse Recovery Characteristics
Ultrafast Reverse Recovery Time
Low Reverse Recovery Loss
Low Forward Voltage
High Surge Current Capability
Low Inductance Package



Maximum Ratings

Symbol	Conditions	Values	Units
V_R		600	V
V_{RRM}		600	V
$I_{F(AV)}$	$T_C=110^{\circ}\text{C}$, Per Diode	300	A
$I_{F(RMS)}$	$T_C=110^{\circ}\text{C}$, Per Diode	420	A
I_{FSM}	1/2 Cycle, 50Hz, Sine	3000	A
	1/2 Cycle, 60Hz, Sine	3200	A
I^2t	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	45000	A^2s
	$T_J=45^{\circ}\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	51200	A^2s
P_D		890	W
Visol	AC, $T_{on}=1\text{min}$	3000	V
T_J		-40 to +150	$^{\circ}\text{C}$
T_{STG}		-40 to +125	$^{\circ}\text{C}$
Torque	Recommended M6	$4\pm 15\%$	N·m
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Weight		160	g

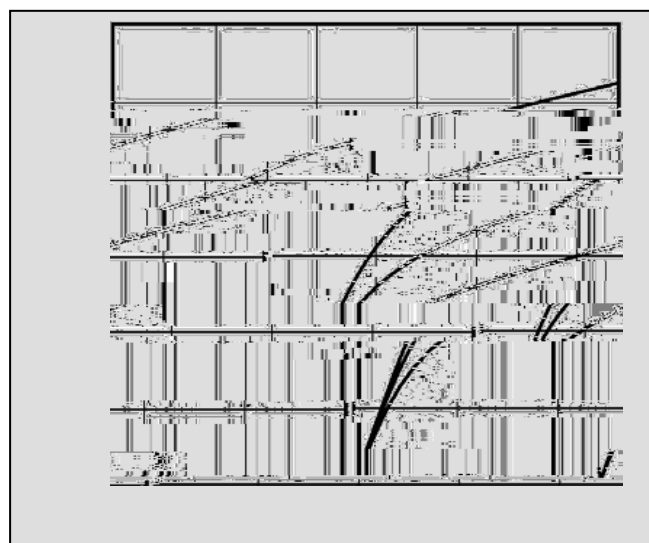
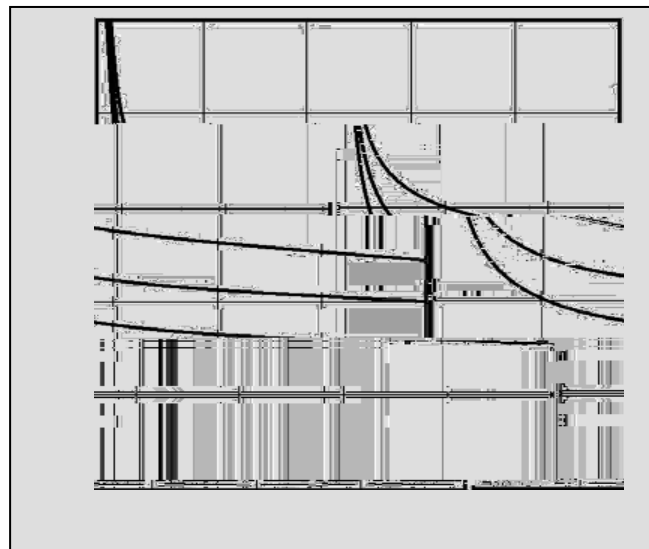
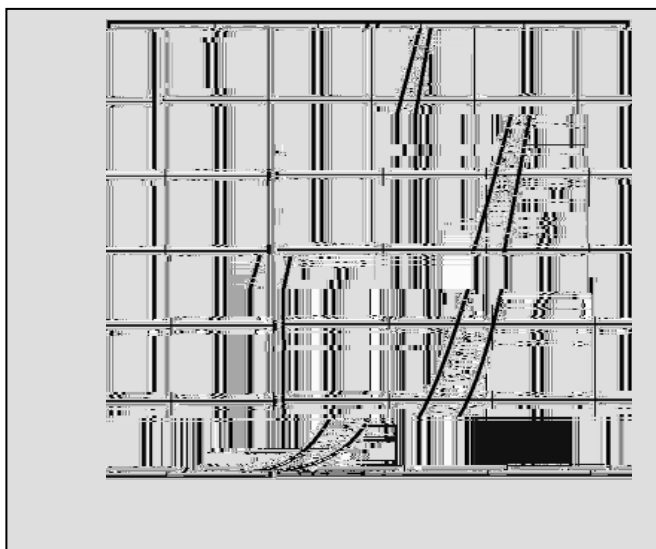
Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per Module	0.14	/W



Electrical Characteristics

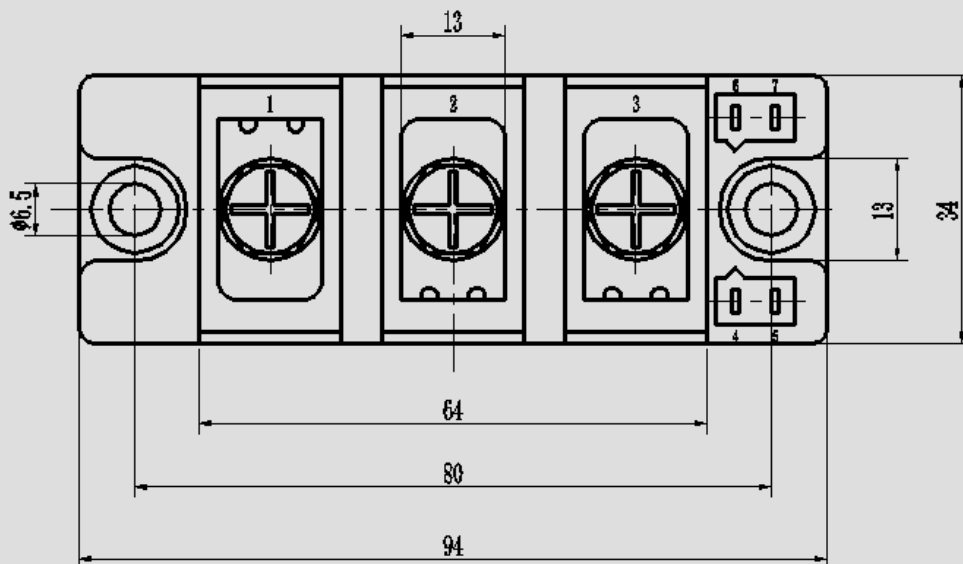
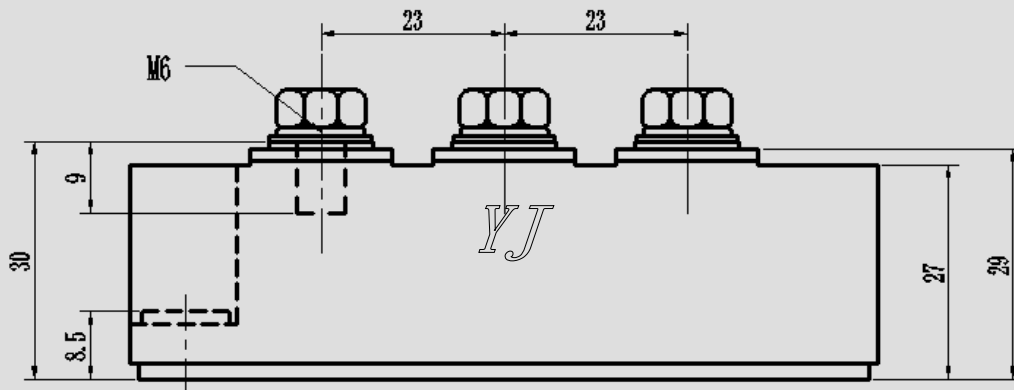
Performance Curves





Package Outline Information

CASE: F2N



Dimensions in mm