



FRED Modules

V_{RRM} 600V
I_{FAV} 300 A

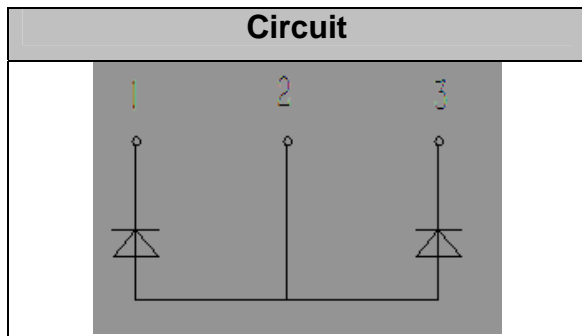
Applications

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

Circuit



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

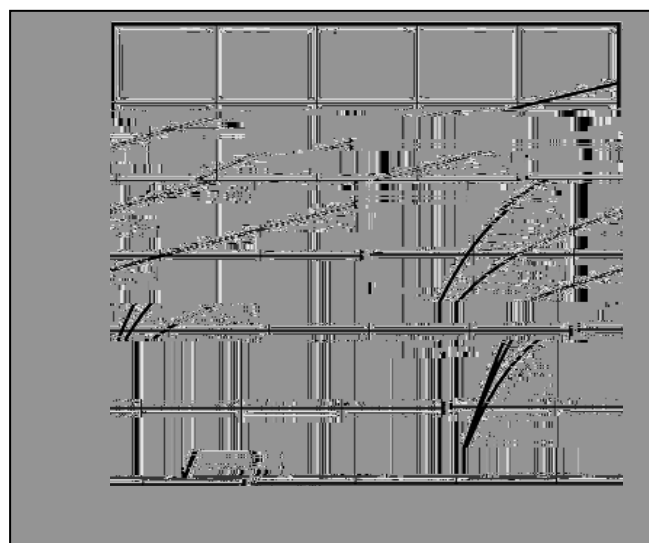
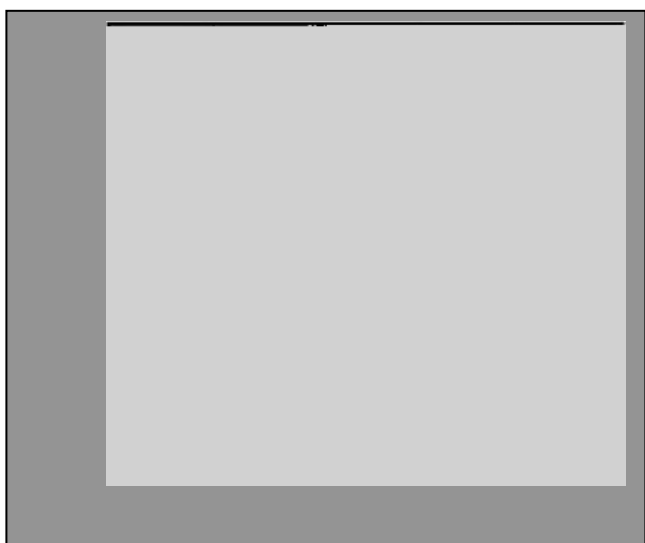
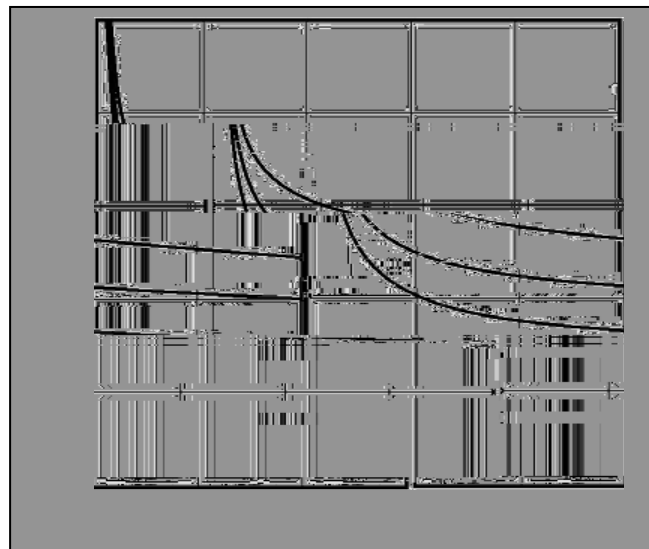
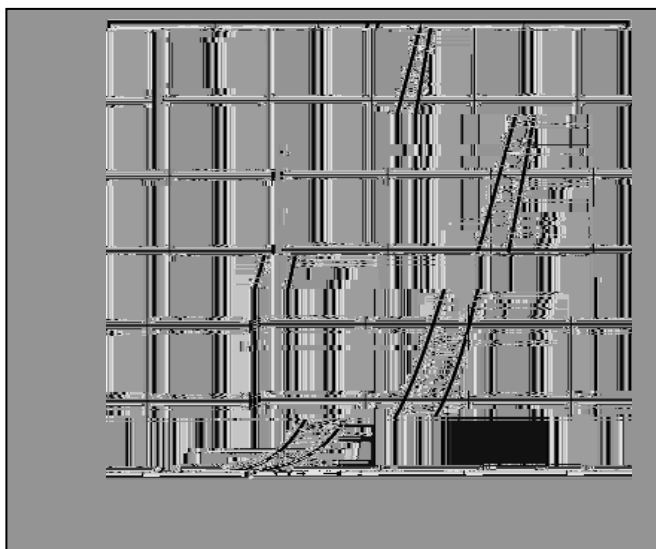
Thermal Characteristics

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



Electrical Characteristics

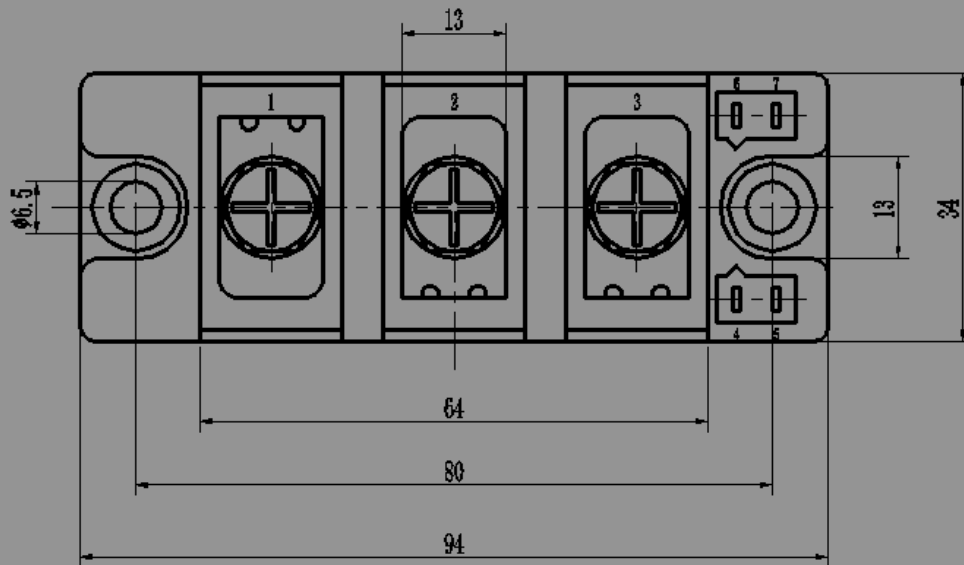
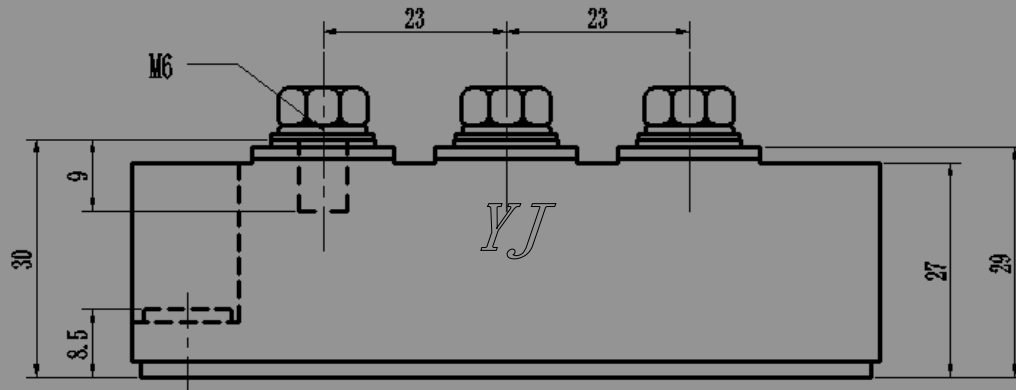
Performance Curves





Package Outline Information

CASE: F2N



Dimensions in mm