

FD1000FH-56

HIGH POWER, HIGH FREQUENCY,
PRESS PACK TYPE

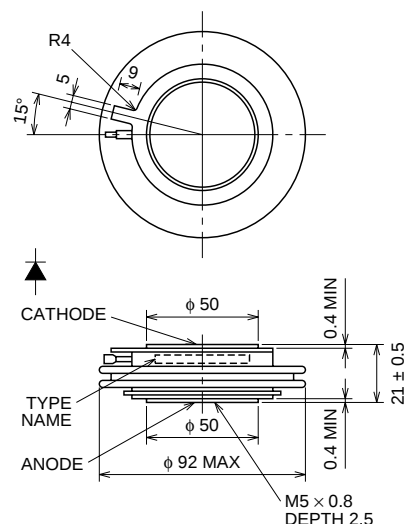
FD1000FH-56



- $I_F(AV)$ Average forward current1000A
- V_{RRM} Repetitive peak reverse voltage 2500V, 2800V
- Q_{RR} Reverse recovery charge 1000 μ C
- Press pack type

OUTLINE DRAWING

Dimensions in mm



APPLICATION

High-power inverters, Fly-wheel diodes in DC choppers, Power supplies as high frequency rectifiers

MAXIMUM RATINGS

Symbol	Parameter	Voltage class		Unit
		50	56	
V_{RRM}	Repetitive peak reverse voltage	2500	2800	V
V_{RSM}	Non-repetitive peak reverse voltage	2800	3100	V
$V_R(DC)$	DC reverse voltage	2000	2240	V

Symbol	Parameter	Conditions	Ratings	Unit
$I_F(RMS)$	RMS forward current		1570	A
$I_F(AV)$	Average forward current	$f = 60\text{Hz}$, sine wave $\theta = 180^\circ$, $T_r = 79^\circ\text{C}$	1000	A
I_{FSM}	Surge forward current	One half cycle at 60Hz, non-repetitive	25	kA
I^2t	Current-squared, time integration	One cycle at 60Hz	2.6×10^5	A^2s
T_j	Junction temperature		$-40 \sim +125$	$^\circ\text{C}$
T_{stg}	Storage temperature		$-40 \sim +150$	$^\circ\text{C}$
—	Mounting force required	Recommended value 29.4	26.5 ~ 35.3	kN
—	Weight	Standard value		g

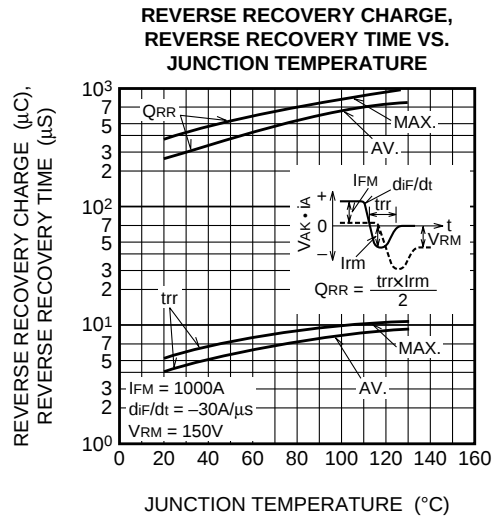
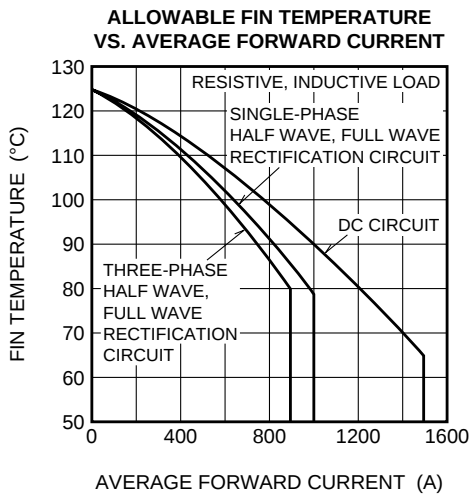
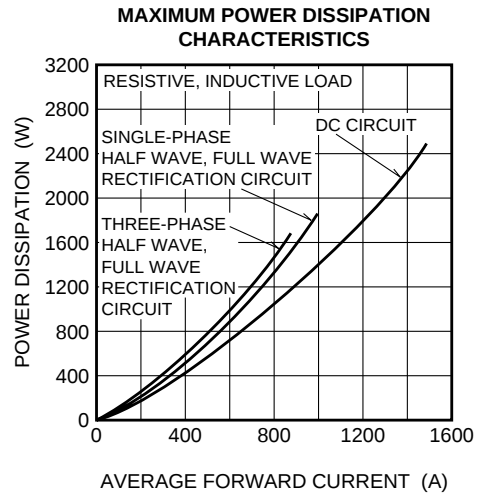
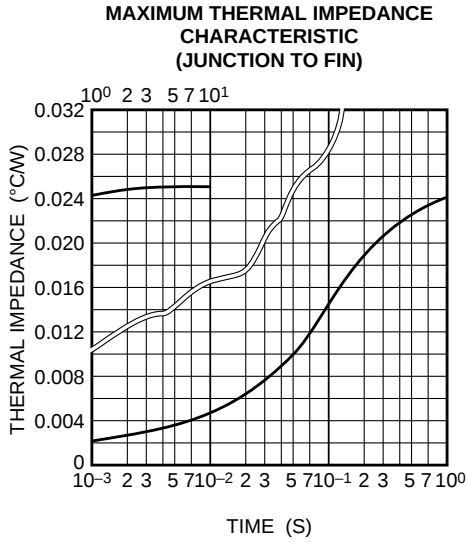
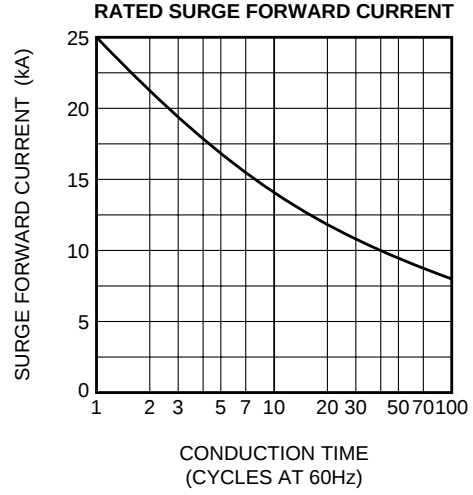
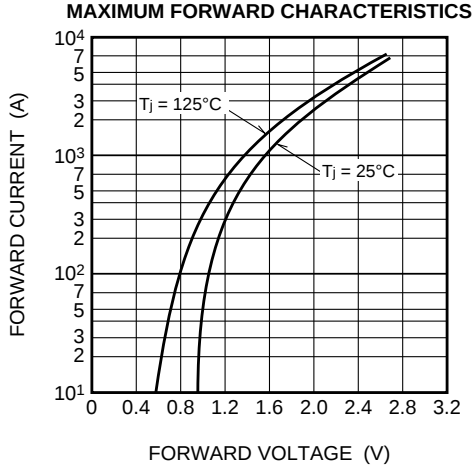
ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{RRM}	Repetitive peak reverse current	$T_j = 125^\circ\text{C}$, V_{RRM} Applied	—	—	80	mA
V_{FM}	Forward voltage	$T_j = 125^\circ\text{C}$, $I_{FM} = 2500\text{A}$, Instantaneous measurement	—	—	1.9	V
Q_{RR}	Reverse recovery charge	$I_{FM} = 1000\text{A}$, $di_F/dt = -30\text{A}/\mu\text{s}$, $V_R = 150\text{V}$, $T_j = 125^\circ\text{C}$	—	—	1000	μC
$R_{th(j-f)}$	Thermal resistance	Junction to fin	—	—	0.025	$^\circ\text{C}/\text{W}$

FD1000FH-56

HIGH POWER, HIGH FREQUENCY,
PRESS PACK TYPE

PERFORMANCE CURVES



FD1000FH-56

HIGH POWER, HIGH FREQUENCY,
PRESS PACK TYPE

