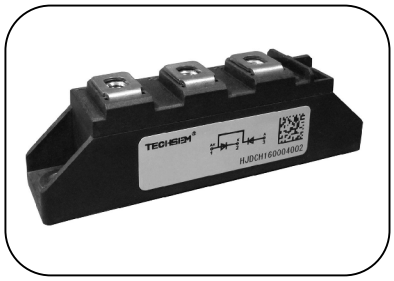


Features：

- **n** Soft Reverse Recovery Characteristics
- **n** Ultrafast Reverse Recovery Time
- **n** Low Reverse Recovery Loss

Typical Applications

- **n** Inversion Welder
- **n** UPS
- **n** Plating Power Supply
- **n** Ultrasonic Cleaner and Welder

V_{RRM}	Type & Outline
1200V	MRC100-12-224H3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{F(AV)}$	Mean forward current	T_C=75°C, Per Diode	150			100	A
		TC=85°C, 20KHz, Per Module				75	A
$I_{F(RMS)}$	RMS forward current	T_C=75°C, Per Diode				150	A
I_{RRM}	Repetitive peak current	at V_{RRM}	125			10	mA
I_{FSM}	Surge forward current	V_R=0V, t_p=10ms	45			1100	A
		V_R=0V,t_p=8.3ms	45			1200	
I^2t	I^2t for fusing coordination	V_R=0V, t_p=10ms	45			6050	10^3A^2s
		V_R=0V,t_p=8.3ms	45			7200	
P_D	Maximum power dissipation				280		W
V_{FM}	Peak forward voltage	I_{FM}=100A	25		1.58	1.80	V
			125		1.35		
trr	Reverse recovery time	I_F=1A, di_F/dt=-200A/μs, V_R=30V	25		90		ns
trr	Reverse recovery time	V_R=600V, I_F=100A, di_F/dt=-200A/μs	25		160		ns
I_{RM}	Reverse current				10		A
trr	Reverse recovery time		125		400		ns
I_{RM}	Reverse current				21		A
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180^0 sine. Single side cooled per chip				0.40	°C/W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min		3000			V
F_m	Terminal connection torque(M5)			2.55		3.45	N·m
	Mounting torque(M6)			4.25		5.75	N·m
T_{vj}	Junction temperature			-40		150	°C
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				100		g
Outline	224H3						

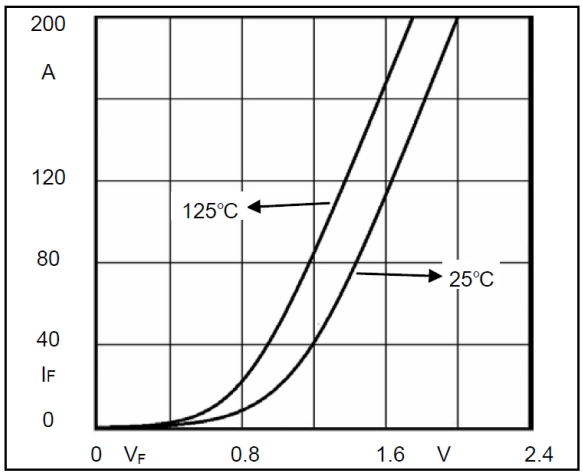


Fig1. Forward Voltage Drop vs Forward Current

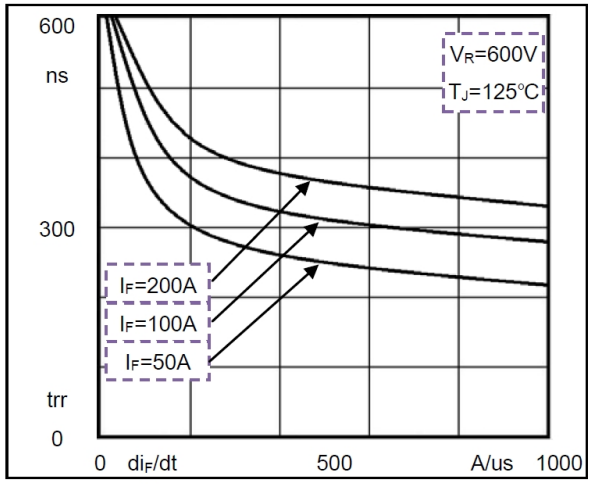


Fig2. Reverse Recovery Time vs di_F/dt

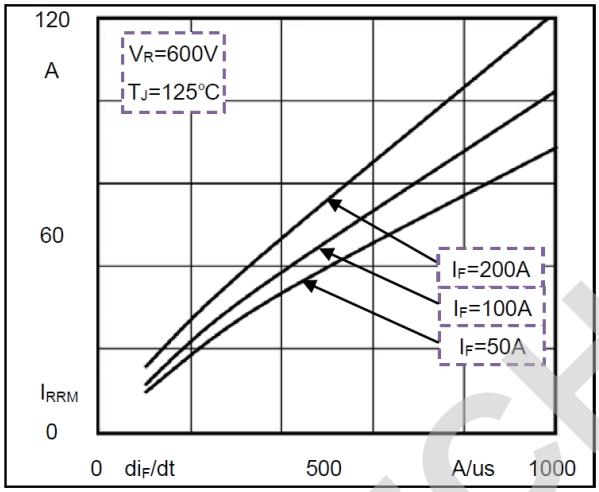


Fig3. Reverse Recovery Current vs di_F/dt

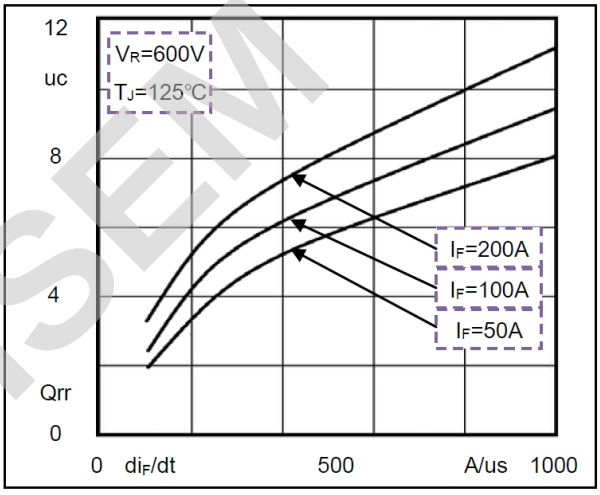
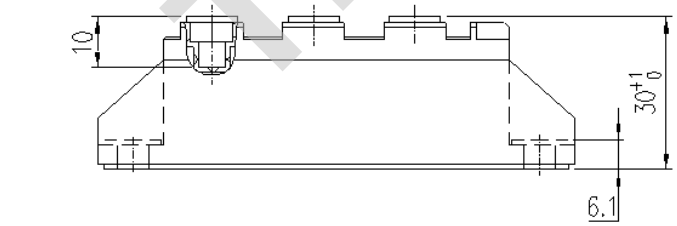
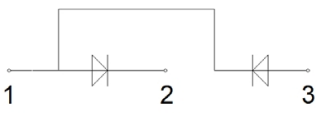
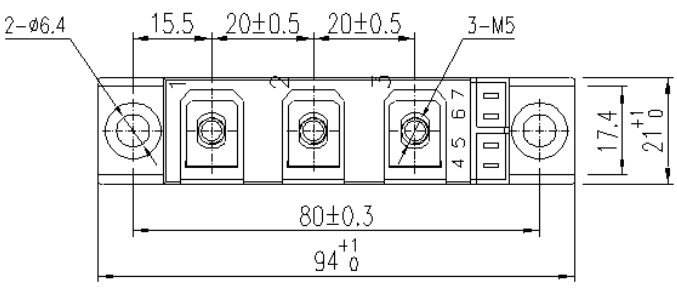


Fig4. Reverse Recovery Charge vs di_F/dt

Outline:







Unmarked dimensional tolerance：±0.5mm

TECHSEM reserves the right to change specifications without notice.