**Features:**

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

Typical Applications

- n Inversion Welder
- n UPS
- n Chopper

V _{RRM}	Type & Outline
1200V	MRC300-12-229H3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT
				Min	Type	Max	
I _{F(AV)}	Mean forward current	T _C =110°C, Per Diode	150			300	A
I _{F(RMS)}	RMS forward current					471	A
I _{F(AV)}	Mean forward current	T _C =120°C,20KHz, Per Module	150			200	A
I _{R(RM)}	Repetitive peak current	at V _{RRM}	125			10	mA
I _{F(SM)}	Surge forward current	10ms half sine wave	45			2.7	kA
I ² t	I ² t for fusing coordination					36.45	10 ³ A ² s
V _{FM}	Peak forward voltage	I _{FM} =300A	25		2.8	3.1	V
			125		2.1	2.4	V
t _{rr}	Reverse recovery time	I _F =1A, V _R =30V, di _F /dt=-200A/μs			65		ns
t _{rr}	Reverse recovery time	I _{FM} =300A, -di/dt=200A/μs, V _R =600V	25		135		ns
			125		385		ns
R _{th(j-c)}	Thermal resistance Junction to case	Single side cooled				0.14	°C/W
F _m	Terminal connection torque(M6)			4.5		6.0	N·m
	Mounting torque(M6)			4.5		6.0	N·m
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)		3000			V
T _{vj}	Junction temperature			-40		150	°C
T _{stg}	Stored temperature			-40		125	°C
W _t	Weight				165		g
Outline	229H3						

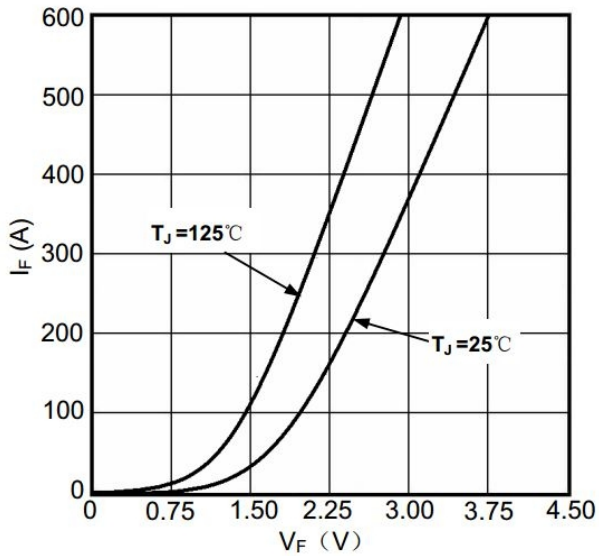


Figure1. Forward Voltage Drop vs Forward Current

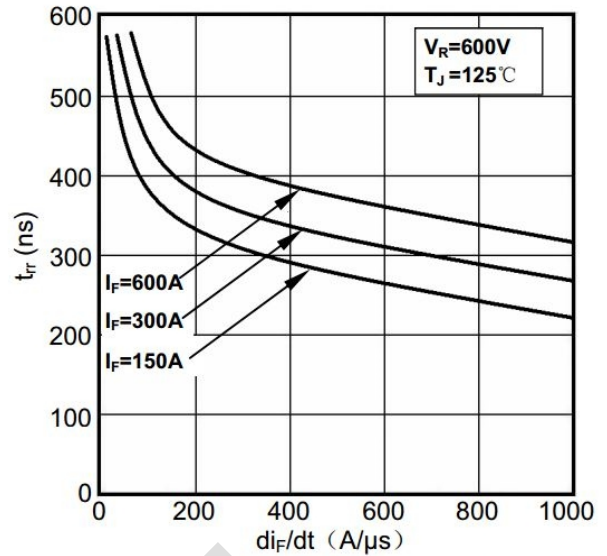


Figure2. Reverse Recovery Time vs di_F/dt

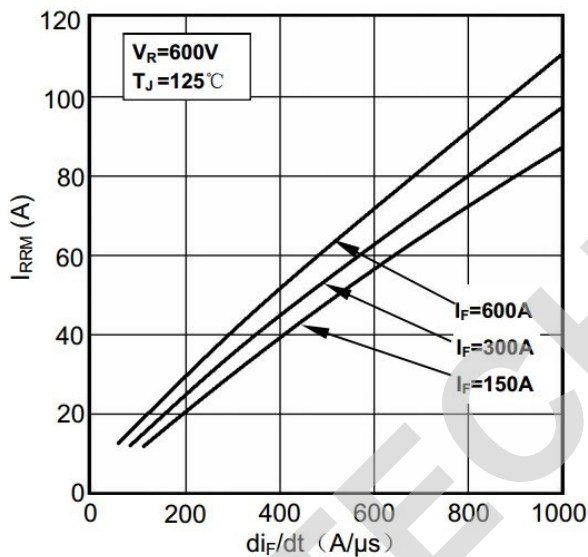


Figure3. Reverse Recovery Current vs di_F/dt

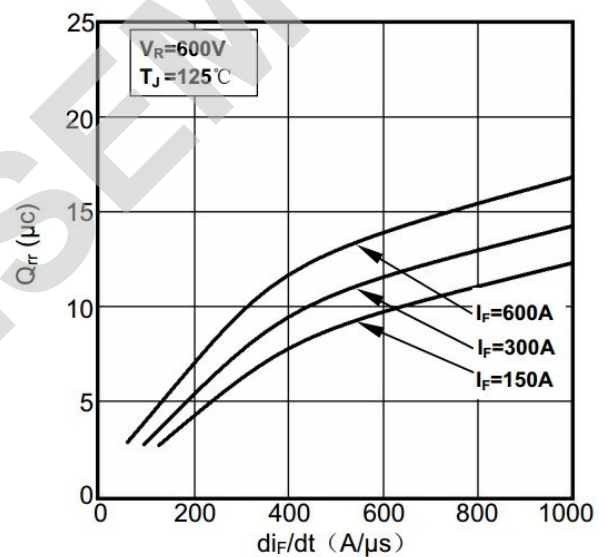


Figure4. Reverse Recovery Charge vs di_F/dt

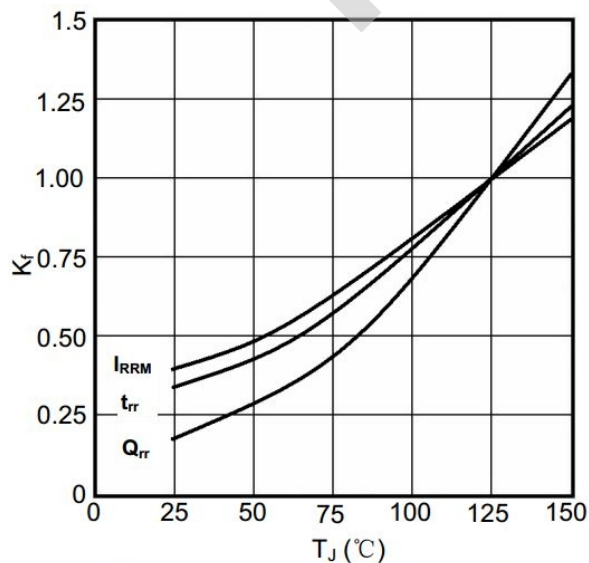


Figure5. Dynamic Parameters vs Junction Temperature

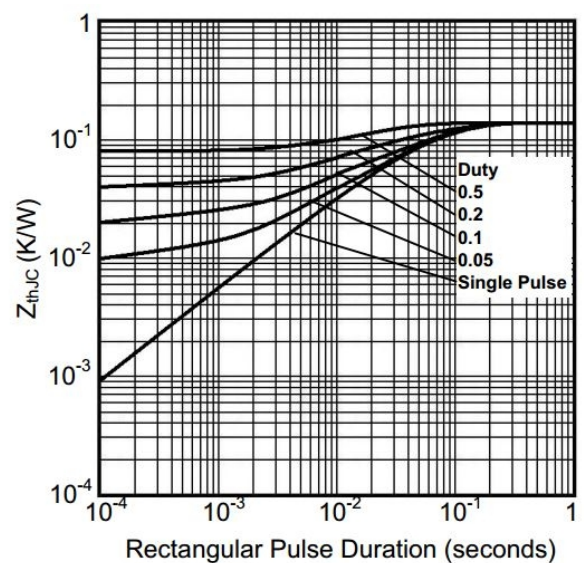
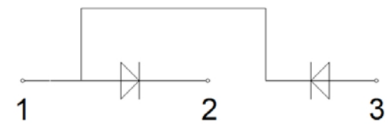
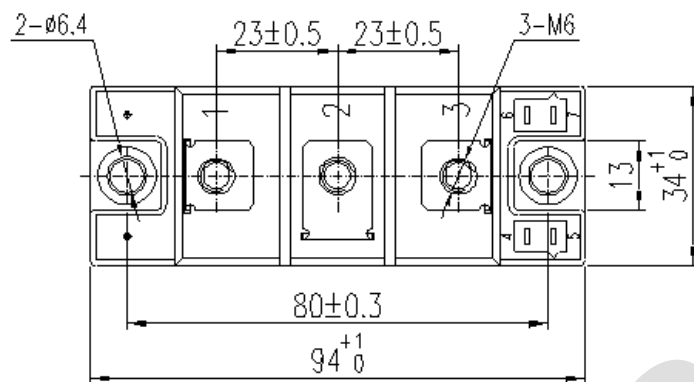
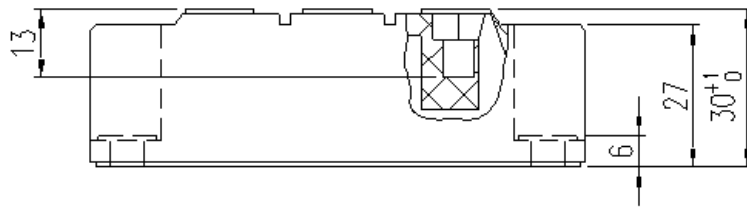


Figure6. Transient Thermal Impedance

Outline:



Unmarked dimensional tolerance: ±0.5mm
 TECHSEM reserves the right to change specifications without notice.

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