TECHSEM

MZC300 MZA300 MZK300 MZ300
Fast Recovery Diode Modules

Features:

- Isolated mounting base 2500V~
- Pressure contact technology with Incrtased power cycling capability
- Space and weight savings

Typical Applications

- Inverter
- Inductive heating
- Chopper

$I_{F(AV)}$	300 A
V_{RRM}	600~1600 V
I_{FSM}	8.3 A×10^3
I^2t	344 A^2 S*10^3

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Single side cooled,T_C=100°C	140			300	A
$I_{F\ (RMS)}$	RMS forward current		140			471	A
V_{RRM}	Repetitive peak reverse voltage	V_{RRM} tp=10ms V_{RSM}= V_{RRM}+100V	140	600		1600	V
I_{RRM}	Repetitive peak current	at V_{RRM}	140			70	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}	140			8.30	KA
I^2t	I^2T for fusing coordination					344	A^2s*10^3
V_{FO}	Threshold voltage		140			0.85	V
r_F	Forward slop resistance					0.58	mΩ
V_{FM}	Peak forward voltage	I_{FM}=900A	25			1.55	V
t_{rr}	Reverse recovery time	I_{FM}=300A,tp=1000μs, -di/dt=20A/μs, V_R=50V	140		4.0		μs
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.100	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
F_m	Terminal connection torque(M10)				12		N·m
	Mounting torque(M6)				6		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				1350		g
Outline	415F3						

Peak forward Voltage Vs.Peak forward Current

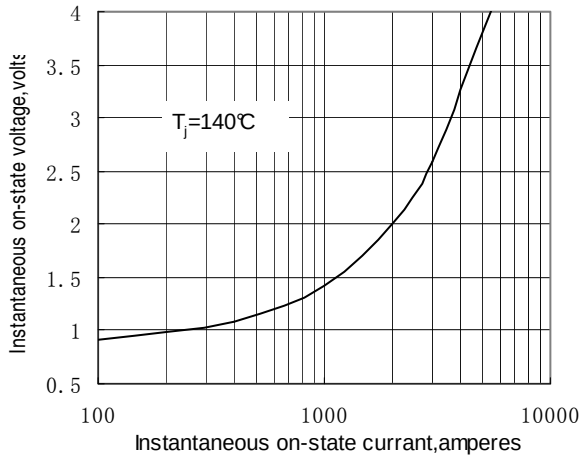


Fig.1

Max. junction To case Thermai Impedance Vs.Time

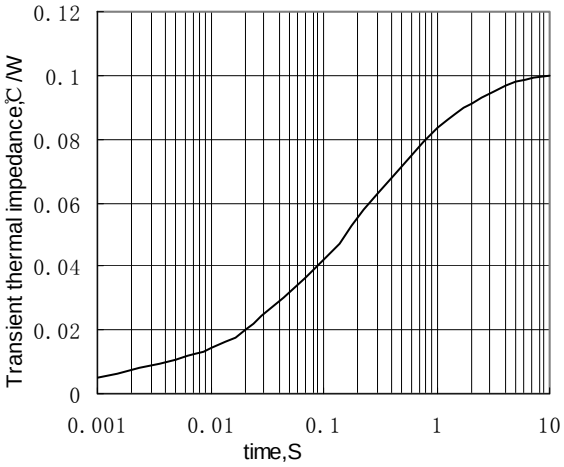


Fig.2

Surge Current Vs.Cycles

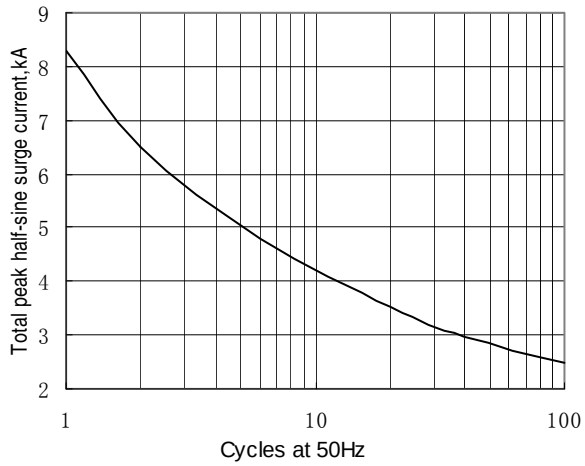


Fig.3

I^2t Vs.Time

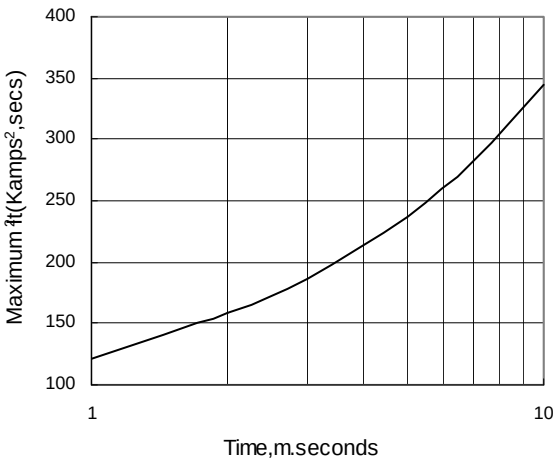
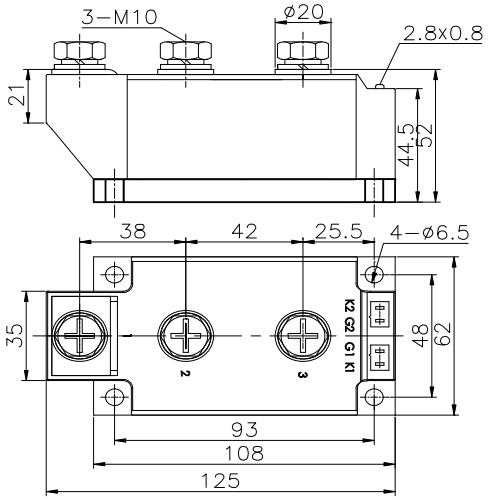


Fig.4

Outline:



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