

MKC150 MKA150 MKK150 MKX150 MK150

Fast Turn-off Thyristor Modules

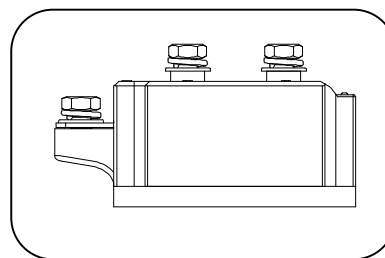
Features:

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

Typical Applications

- n Inverter
- n Inductive heating
- n Chopper

$I_{T(AV)}$ **150 A**
 V_{DRM} / V_{RRM} **600~1600 V**
 I_{TSM} **4.00 A × 10³**
 I^2t **81.6 A² S × 10³**



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _j (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, T _c =85°C	115			150	A
$I_{T(RMS)}$	RMS on-state current		115			236	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM} & V_{RRM} tp=10ms V_{DSM} & V_{RSM} = V_{DRM} & V_{RRM} +200V respectively	115	600		1600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	115			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave	115			4.00	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{RRM}$				81.6	A ² s*10 ³
V_{TO}	Threshold voltage		115			0.85	V
r_T	On-state slop resistance					1.66	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=450A$	25			1.78	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	115			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A $t_r \leq 0.5\mu s$ Repetitive	115			200	A/μs
t_q	Circuit commutated turn-off time	$I_{TM}=150A, tp=1000\mu s, V_R=50V$ $dv/dt=30V/\mu s, di/dt=20A/\mu s$	115	15		35	μs
t_{rr}	Reverse recovery time	$I_{FM}=150A, tp=1000\mu s,$ $-di/dt=20A/\mu s, V_R=50V$	115		2.0		μs
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25	30		180	mA
V_{GT}	Gate trigger voltage			1.0		2.5	V
I_H	Holding current			20		200	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	115	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.140	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled				0.04	°C /W
V_{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} : 1mA(MAX)		2500			V
F_m	Thermal connection torque(M8)				12		N-m
	Mounting torque(M6)				6		N-m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				860		g
Outline	413F3						

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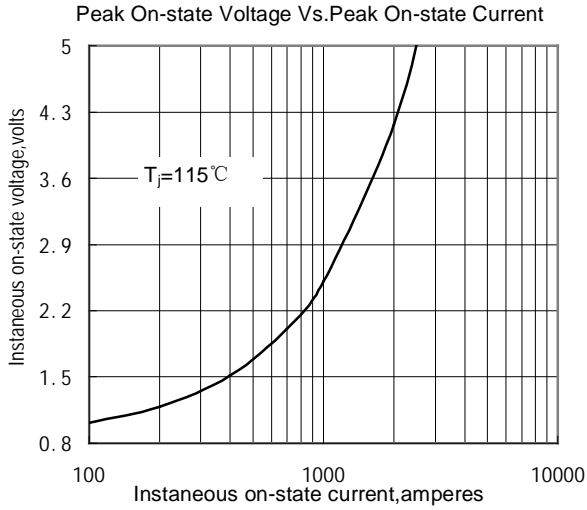


Fig.1

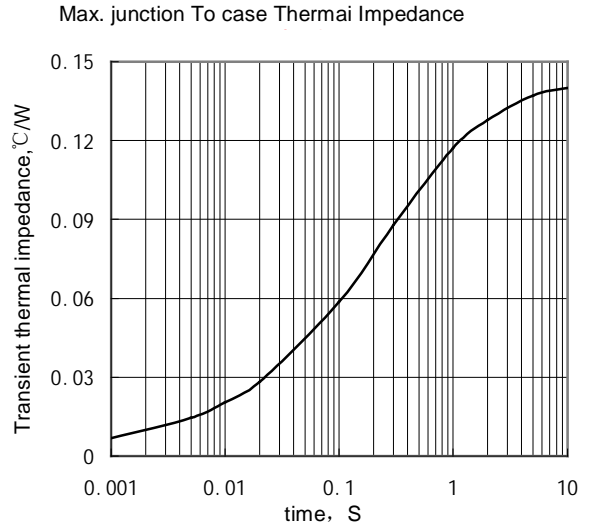


Fig.2

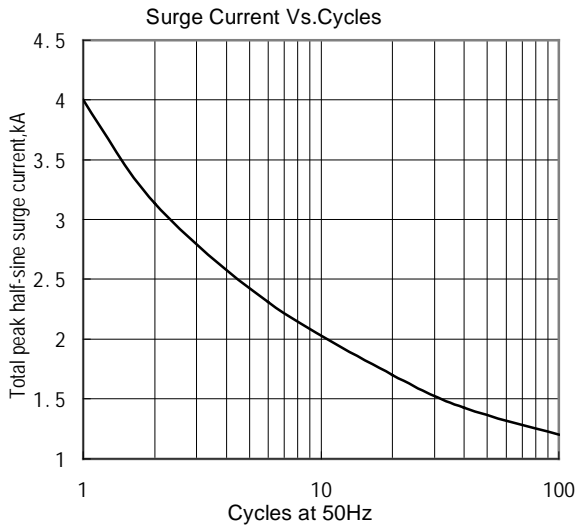


Fig.3

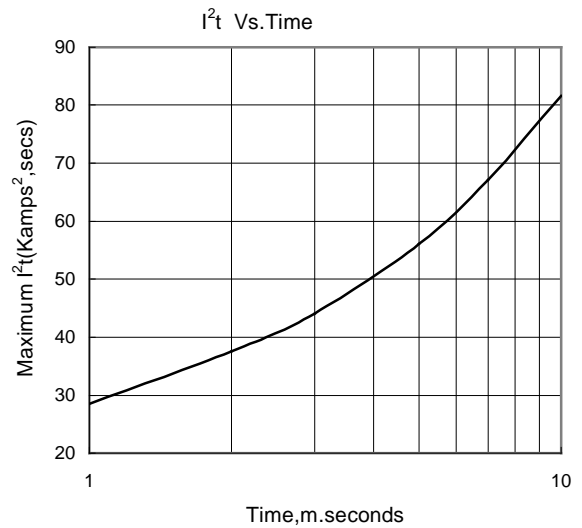


Fig.4

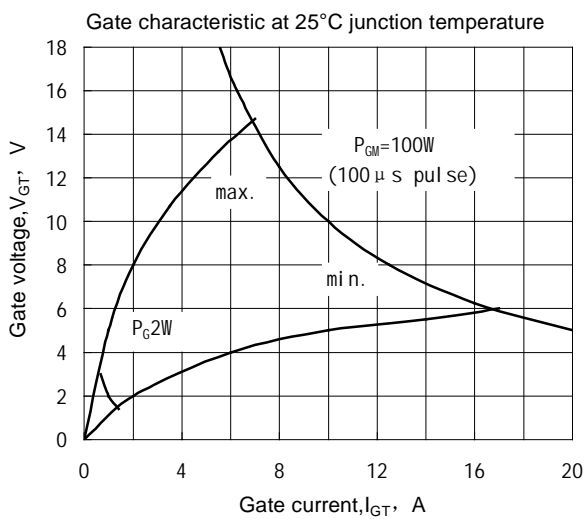


Fig.5

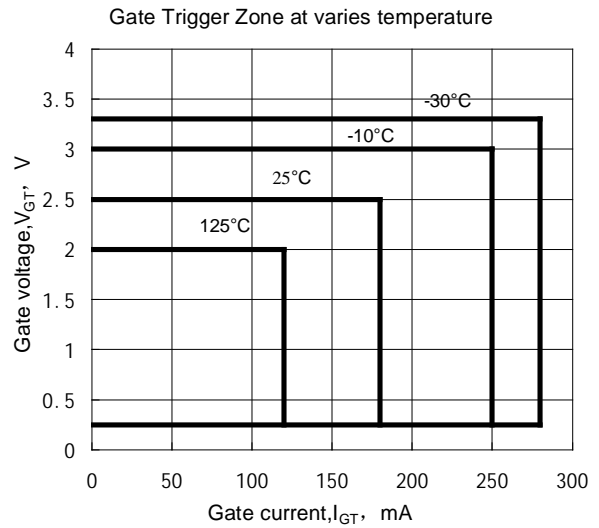
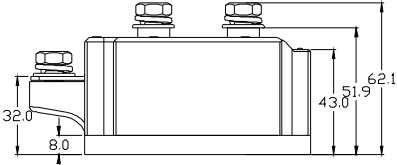
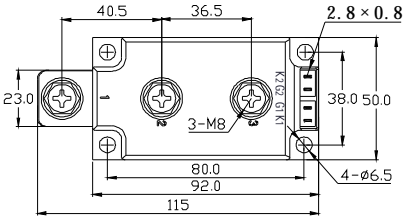


Fig.6

MKC150 MKA150 MKK150 MKX150 MK150

Outline:



413F3

