

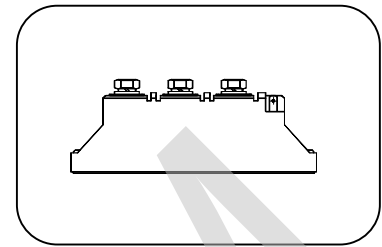
Features:

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

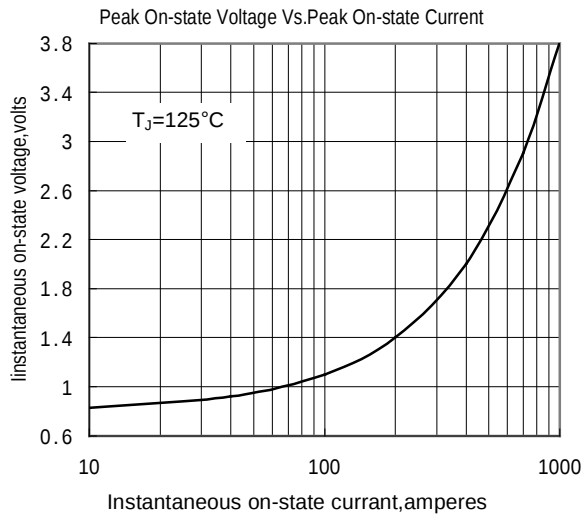
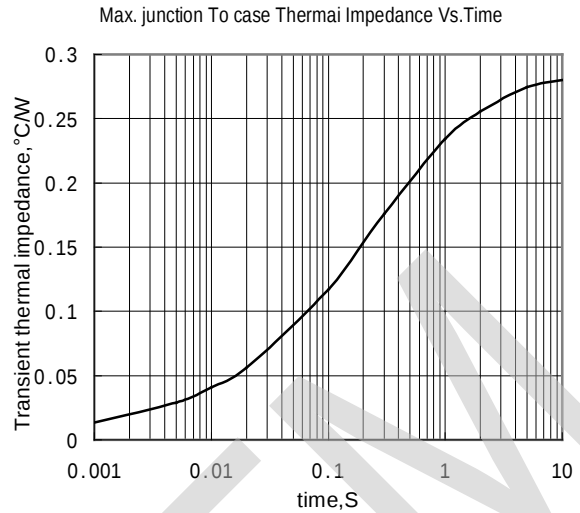
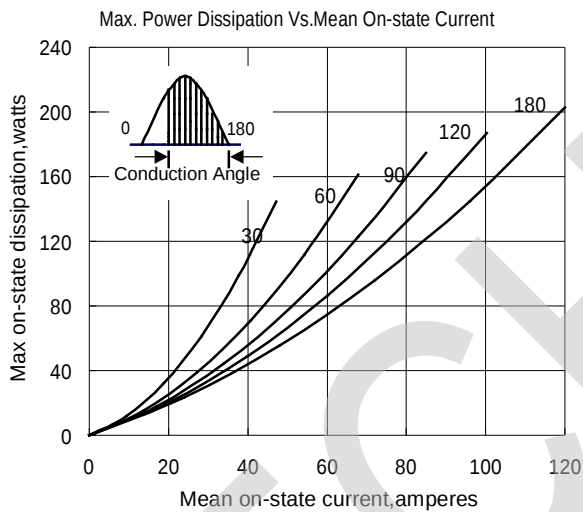
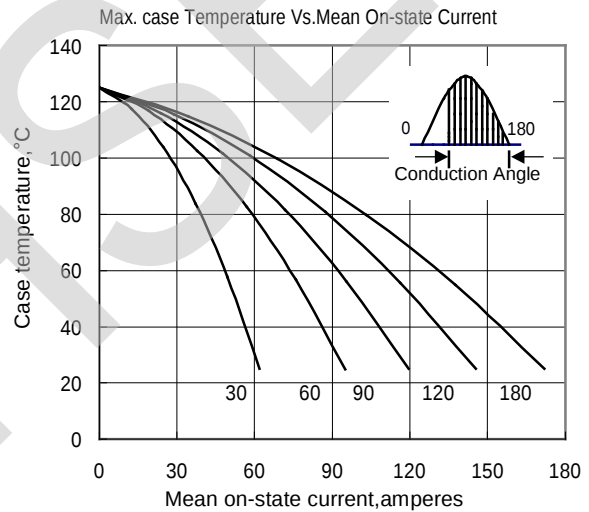
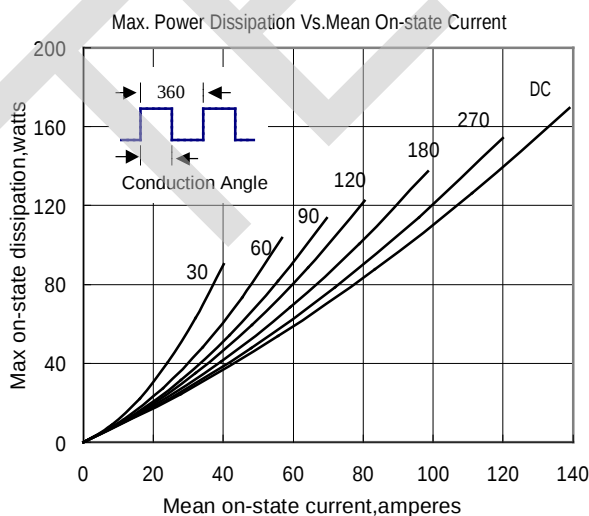
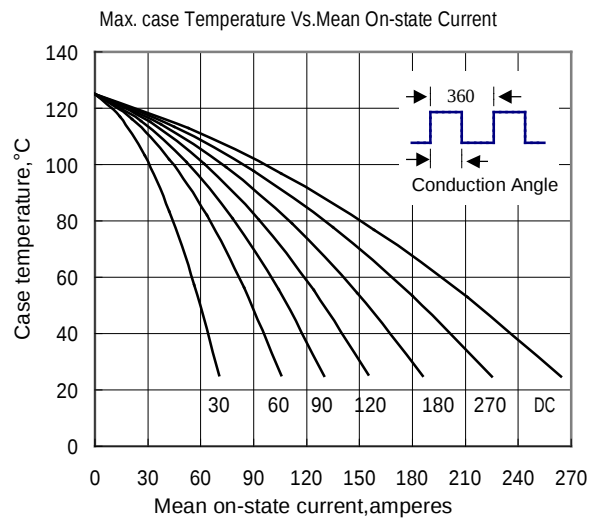
Typical Applications

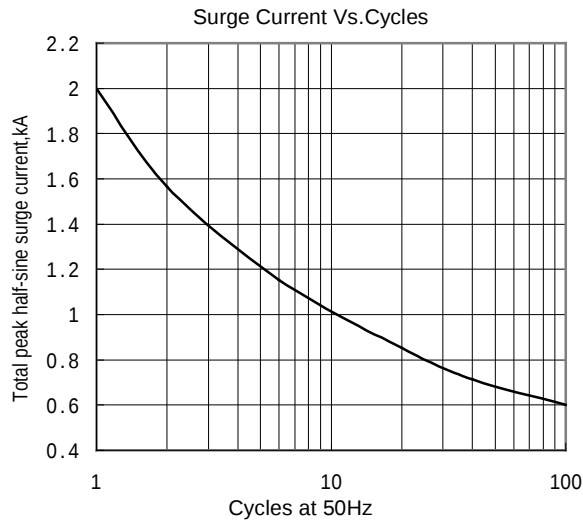
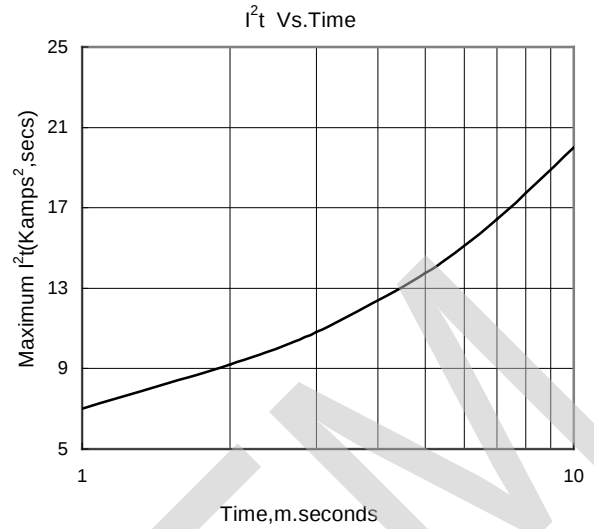
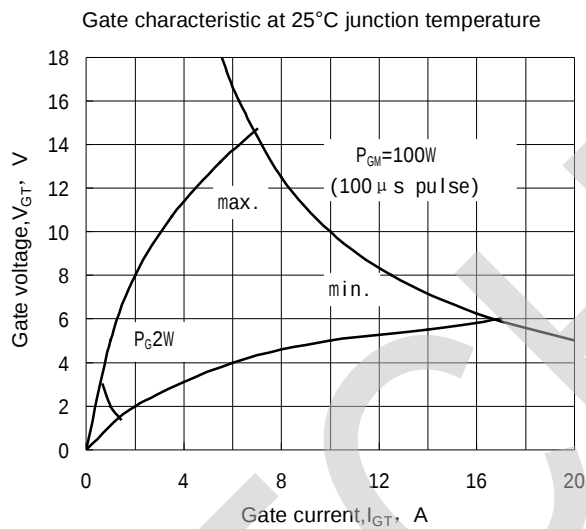
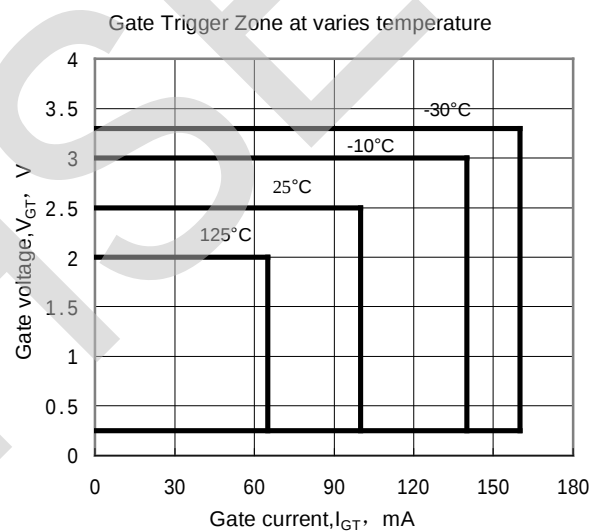
- n AC/DC Motor drives
- n Various rectifiers
- n DC supply for PWM inverter

$I_{T(AV)}$ 90A
 V_{DRM}/V_{RRM} 600~1800V
 I_{TSM} $2.0A \times 10^3$
 I^2t $20.4A^2 \cdot S \times 10^3$

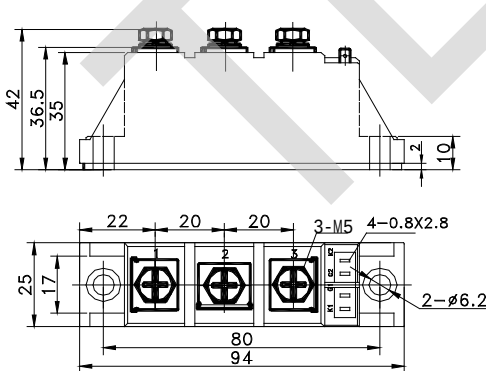
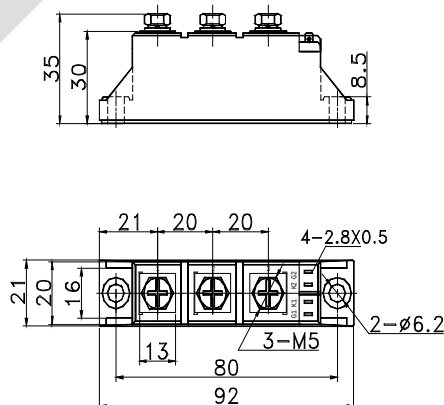


SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, $T_c=85^{\circ}C$	125			90	A
$I_{T(RMS)}$	RMS on-state current		125			141	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM} \& V_{RRM} t_p=10ms$ $V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 200V$ respectively	125	600		1600	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			10	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			2.00	KA
I^2t	I^2T for fusing coordination	$V_R=60\%V_{RRM}$				20.4	$A^2s \times 10^3$
V_{TO}	Threshold voltage		125			0.8	V
r_T	On-state slop resistance					3.01	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=270A$	25			1.70	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125			800	V/μs
di/dt	Critical rate of rise of on-state current	$I_{TM}=180A$, Gate source 1.5A $t_r \leq 0.5\mu s$ Repetitive	125			100	A/μs
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25	30		100	mA
V_{GT}	Gate trigger voltage			1.0		2.5	V
I_H	Holding current			20		100	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125	0.2			V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled				0.280	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink	Single side cooled				0.15	$^{\circ}C/W$
V_{iso}	Isolation voltage	50Hz, R.M.S, $t=1min, I_{iso}:1mA(MAX)$		2500			V
F_m	Thermal connection torque (M5)				4.0		N·m
	Mounting torque (M6)				6.0		N·m
T_{stg}	Stored temperature			-40		125	$^{\circ}C$
W_t	Weight				160		g
Outline	217F3/223F3						


Fig.1

Fig.2

Fig.3

Fig.4

Fig.5

Fig.6


Fig.7

Fig.8

Fig.9

Fig.10

Outline:


217F3

223F3
