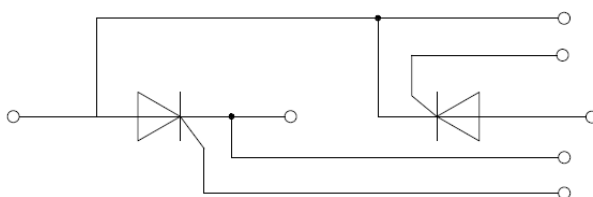




Half-bridge SCR configuration integrated
in a single package
High-thermal-conductivity DBC insulation for excellent
heat dissipation
Vacuum soldering technology for enhanced reliability

Heating control
Light control system
DC motor

V_{RRM}	1600	V
$I_{T(AV)}(@ T_C = 85^\circ\text{C})$	90	A
$I_{TSM}(@ t_p = 10\text{ms})$	1800	A
$V_T(\text{Max})$	1.80	V



(@ $T_C = 25^\circ\text{C}$ unless otherwise specified)

Repetitive peak off-state voltage	$T_{vj} = 25^\circ\text{C}$	V_{DRM}	1600	V
Repetitive peak reverse voltage	$T_{vj} = 25^\circ\text{C}$	V_{RRM}	1600	V
Non-repetitive peak off-state voltage	$T_{vj} = 25^\circ\text{C}$	V_{DSM}	1700	V
Non-repetitive peak reverse voltage	$T_{vj} = 25^\circ\text{C}$	V_{RSM}	1700	V
Average forward current	$T_C = 85^\circ\text{C}$	$I_{T(AV)}$	90	A
Forward surge current	1/2 cycle, Sine wave, 50Hz $T_{vj} = 25^\circ\text{C}$	I_{TSM}	1800	A
I^2t value for fusing		I^2t	16200	A^2s
Critical rate of rise of on-state current	$I_G = 2 \times I_{GT}$	di/dt	150	A/s
RMS isolation voltage	A.C 50Hz(1s/1min)	V_{ISO}	3600/3000	V
Junction temperature range		T_J	-40 ~ +125	$^\circ\text{C}$
Storage temperature range		T_{stg}	-40 ~ +125	$^\circ\text{C}$



(@ $T_C = 25^\circ\text{C}$ unless otherwise specified)

Peak forward voltage	$I_T=270\text{A}$, $t_P=380$	V_T			1.80	V
Repetitive peak off-state current	$V_D = V_{\text{DRM}}$, $T_{vj} = 25$	I_{DRM}			100	A
	$V_D = V_{\text{DRM}}$, $T_{vj} = 125$				40	mA
Reverse leakage current	$V_R = V_{\text{RRM}}$, $T_{vj} = 25$	I_{RRM}			100	A
	$V_R = V_{\text{RRM}}$, $T_{vj} = 125$				40	mA
Threshold voltage	For power loss calculation only $T_{vj} = 125$,	V_{TO}			0.90	V
Dynamic resistance	$T_{vj} = 125$,	r_T			3.1	
Triggering gate current	$V_D=12\text{V}$ R_L	I_{GT}	20		120	mA
Holding current	$I_T=1\text{A}$	I_H			250	mA

JMT90KT16T1A	JMT90KT16T1A	T1A	100±5 g/PCS	10 PCS	120 PCS

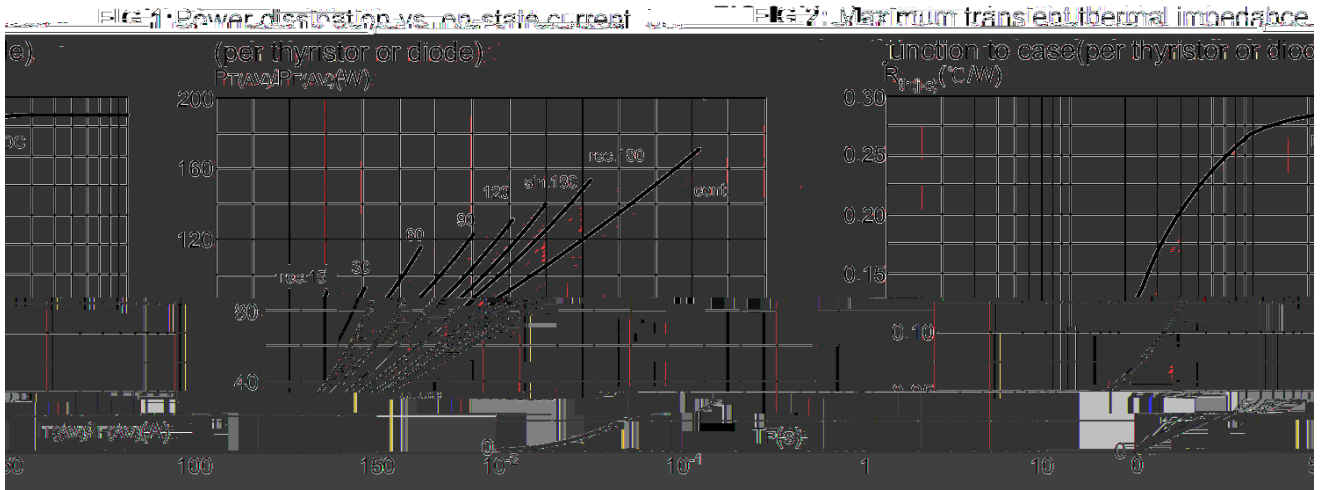


FIG.3: Forward characteristics

FIG.4: Relative variations of gate trigger current, holding current and latching current versus junction temperature

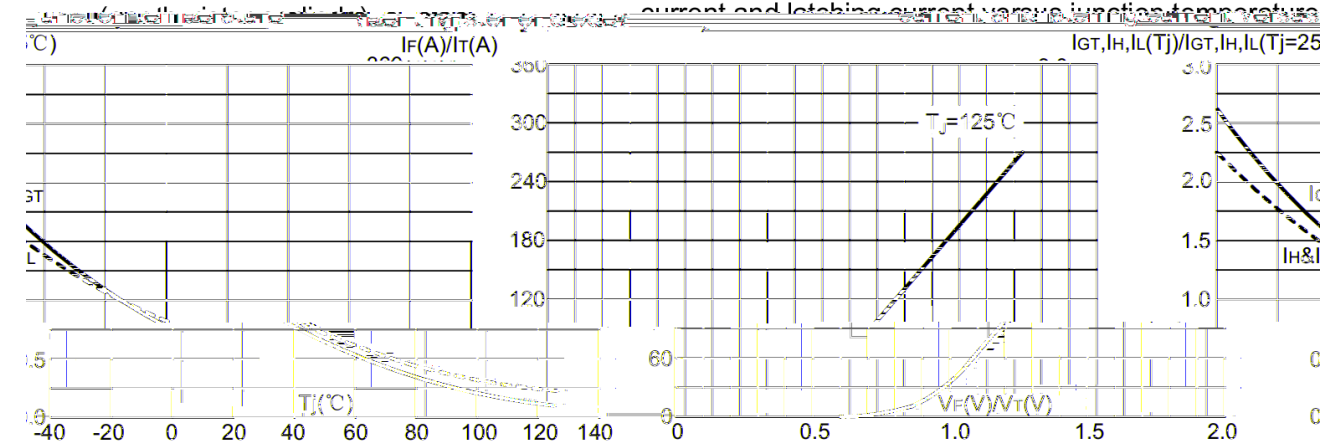
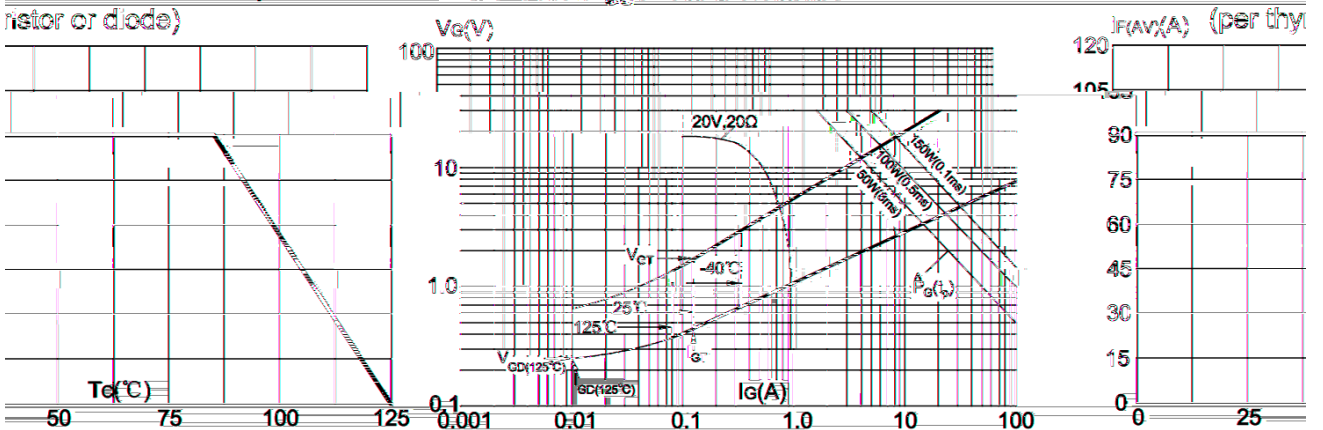
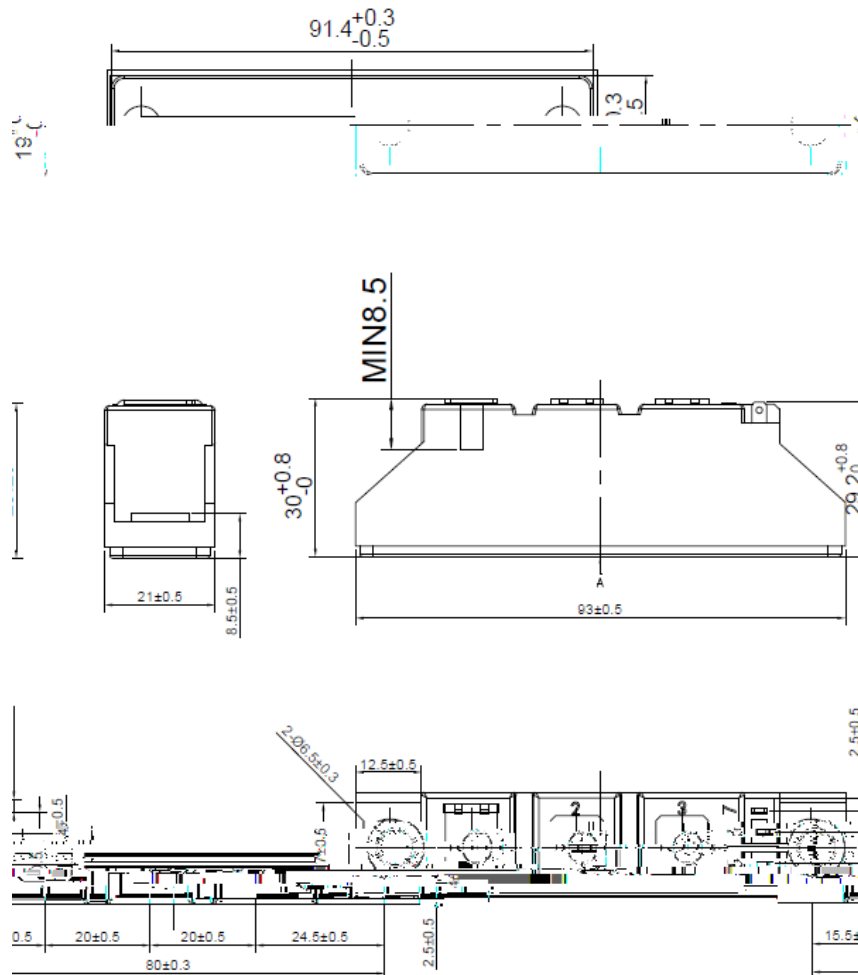
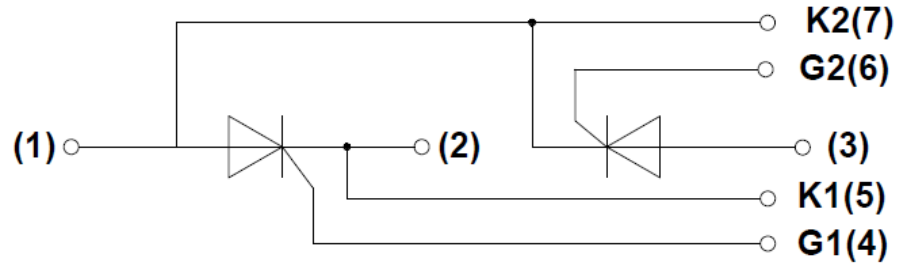


FIG.5: Gate trigger characteristics

FIG.6: Forward current vs. case temperature







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