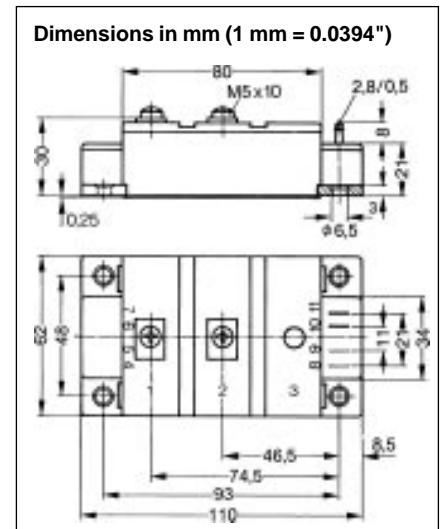
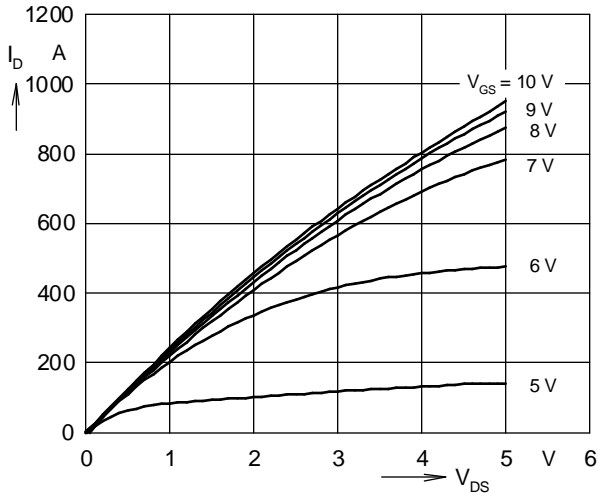
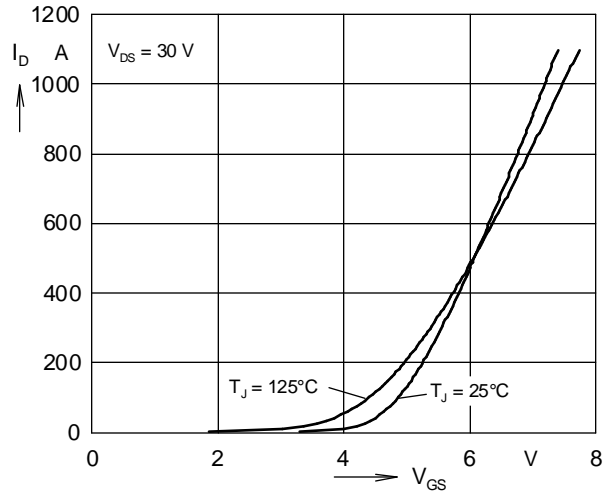
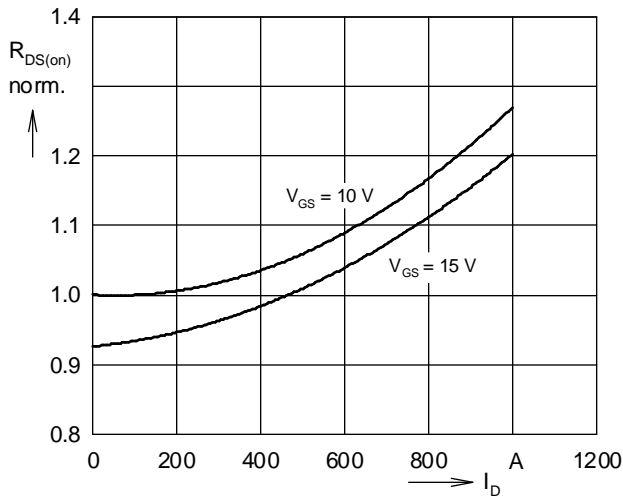
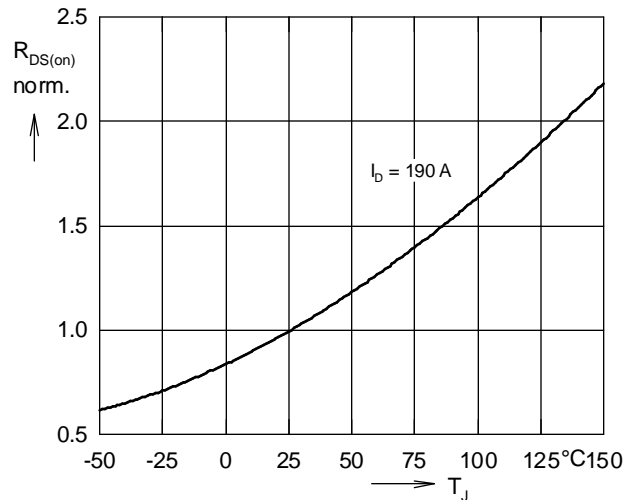
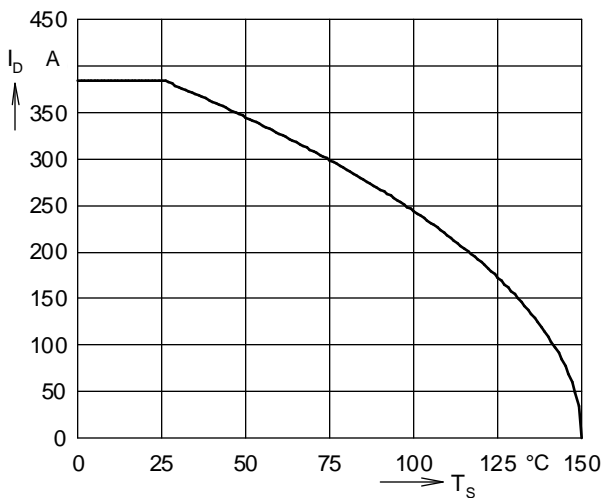
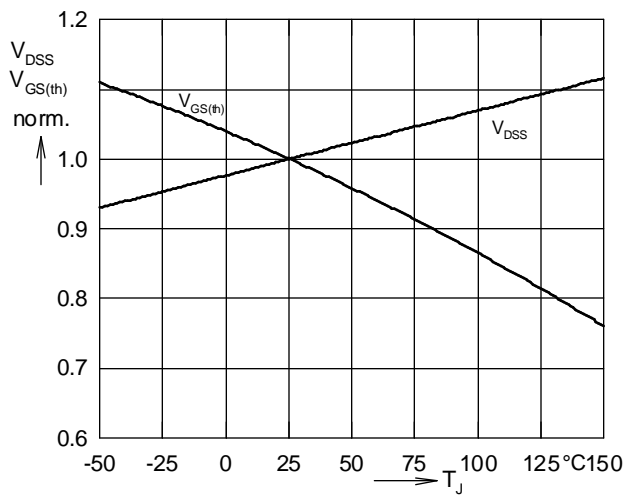




Symbol	Test Conditions	Characteristic		Values specified
		min.	typ.	
		( $T_J = 25^\circ\text{C}$ , unless otherwise specified)		
$g_{fs}$	$V_{DS} = 10\text{V}; I_D = 0.5 \cdot I_{D25}$ pulsed		TBD	S
$C_{iss}$	} $V_{GS} = 0\text{V}, V_{DS} = 25\text{V}, f = 1 \text{ MHz}$		48	nF
$C_{oss}$			8.8	nF
$C_{rss}$			3.1	nF
$t_{d(on)}$	} $V_{GS} = 10\text{V}, V_{DS} = 0.5 \cdot V_{DSS}, I_D = 0.5 \cdot I_{D25}$ $R_G = 1 \ \Omega$ (External)		210	ns
$t_r$			500	ns
$t_{d(off)}$			900	ns
$t_f$			350	ns
$Q_g$	} $V_{GS} = 10\text{V}, V_{DS} = 0.5 \cdot V_{DSS}, I_D = 0.5 \cdot I_{D25}$		2090	nC
$Q_{gs}$			385	nC
$Q_{gd}$			1045	nC
$R_{thJC}$				0.056 K/W
$R_{thJK}$	with 30 $\mu\text{m}$ heat transfer paste			0.083 K/W



Source-Drain Diode		Characteristic		Values specified
Symbol	Test Conditions	min.	typ.	
		( $T_J = 25^\circ\text{C}$ , unless otherwise specified)		
$I_S$	$V_{GS} = 0$			385 A
$I_{SM}$	Repetitive; pulse width limited by $T_{JM}$			1540 A
$V_{SD}$	$I_F = I_S; V_{GS} = 0\text{V}$ , Pulse test, $t \leq 300 \mu\text{s}$ , duty cycle $d \leq 2\%$		0.9	1.2 V
$t_{rr}$	$I_F = I_S, -di/dt = 1200 \text{ A/}$			


 Fig. 1 Typical output characteristics  $I_D = f(V_{DS})$ 

 Fig. 2 Typical transfer characteristics  $I_D = f(V_{GS})$ 

 Fig. 3 Typical  $R_{DS(on)} = f(I_D)$ , normalized

 Fig. 4  $R_{DS(on)} = f(T_J)$ , normalized

 Fig. 5 Continuous drain current  $I_D = f(T_k)$ 

 Fig. 6  $V_{DS} = f(T_J)$ ,  $V_{GS(th)} = f(T_J)$ , normalized

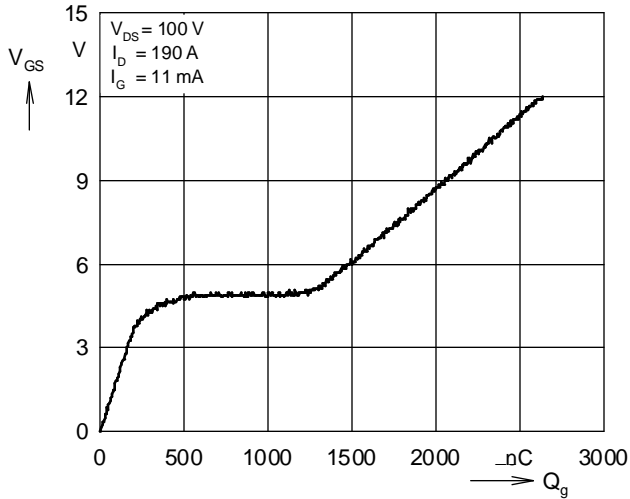


Fig. 7 Typical turn-on gate charge characteristics

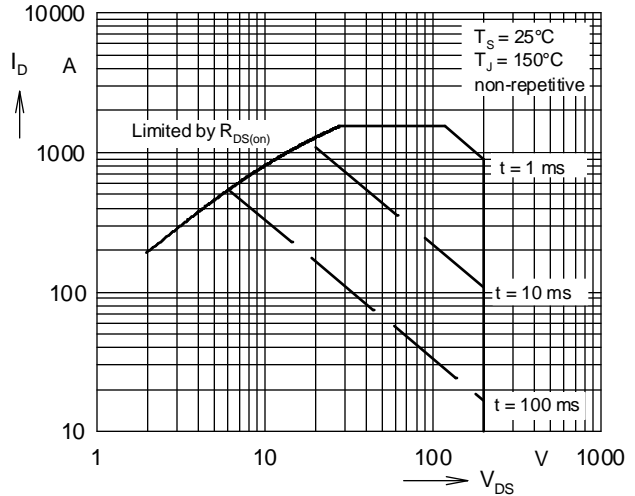
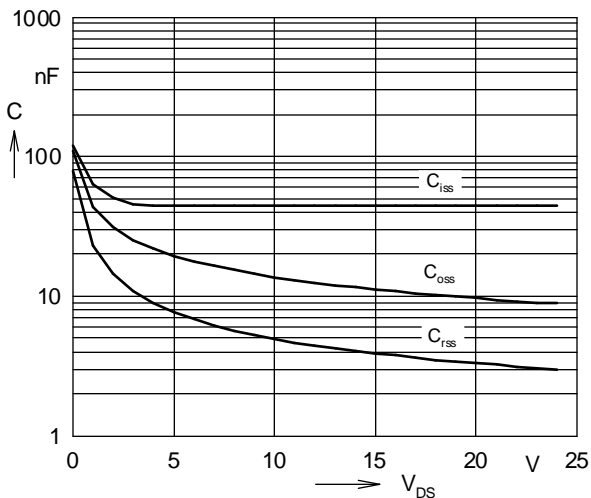
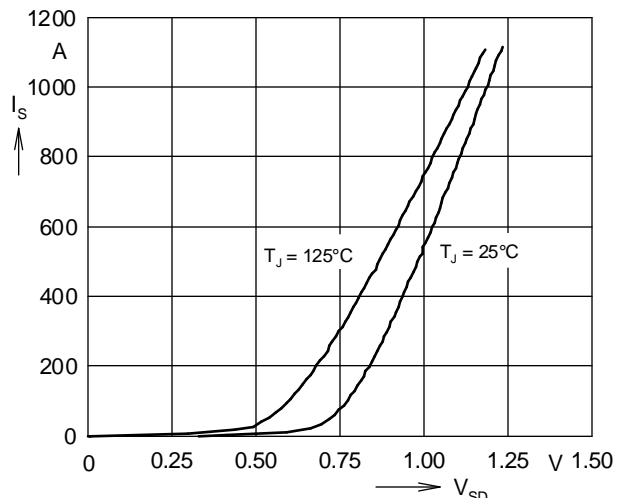
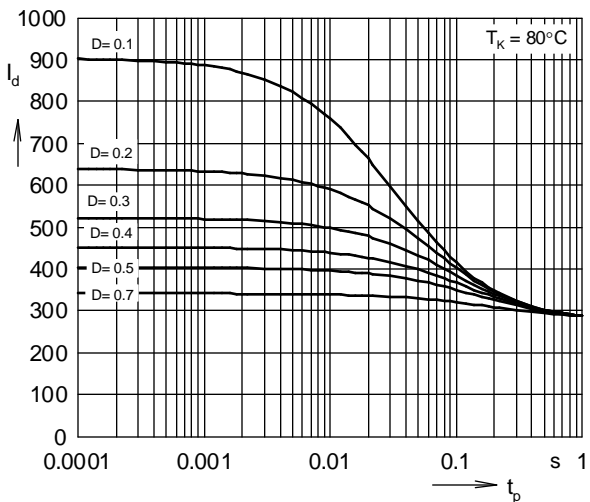
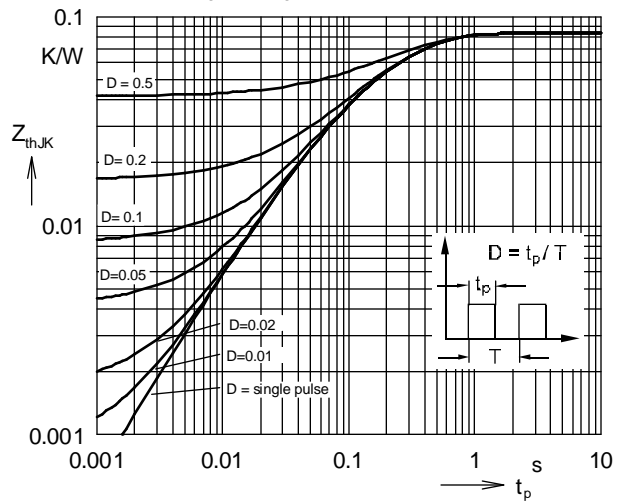

 Fig. 8 Forward Bias Safe Operating Area,  $I_D = f(V_{DS})$ 

 Fig. 9 Typical capacitances  $C = f(V_{DS})$ ,  $f = 1 \text{ MHz}$ 

 Fig. 10 Typical forward characteristics of reverse diode,  $I_S = f(V_{SD})$ 


Fig. 11 Drain current versus pulse width and duty cycle


 Fig. 12 Transient thermal resistance  $Z_{thJK} = f(t_p)$

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