

/ Absolute Maximum Ratings(Ta=25)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	100	V
Drain Current		$I_D(T_c=25)$	15	A
Drain Current		$I_D(T_c=100)$	10	A
Drain Current - Pulsed*		I_{DM}	45	A
Gate-Source Voltage		V_{GS}	± 20	V
Single Pulsed Avalanche Energy		E_{AS}	90	mJ
Avalanche Current		I_{AS}	9.1	A
Power Dissipation		$P_D(T_c=25)$	39	W
Operating and Storage Temperature Range		T_j T_{stg}	-55 150	
Junction-to-Ambient	$t \leq 10s$	R_{dJA}	20	/W
Junction-to-Ambient	Steady-State		50	
Junction-to-Case	Steady-State	R_{dJC}	3.2	

*Repetitive rating; pulse width limited by max. junction temperature.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100V$ $V_{GS}=0V$			1.0	μA
		$T_J=125$			50	
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1	1.9	3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=8.5A$		75	90	mq
		$T_J=125$		142		
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=15A$		1.0	1.2	V
Gate resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$ $f=1MHz$		1.3		Ω
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		250		pF
Output Capacitance	C_{oss}			125		pF
Reverse Transfer Capacitance	C_{rss}			20		pF
Total Gate Charge(10V)	Q_g	$V_{GS}=10V$ $V_{DS}=50V$ $I_D=5A$		5.8		nC
Total Gate Charge(4.5V)	Q_g			2.8		nC
Gate Source Charge	Q_{gs}			1.1		nC
Gate Drain Charge	Q_{gd}			1.2		nC
Turn-On Delay Time	t					

/ Electrical Characteristic Curve

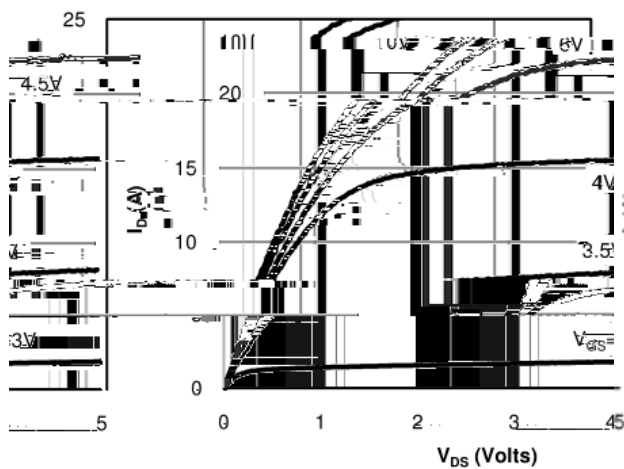


Fig 1: On-Region Characteristics

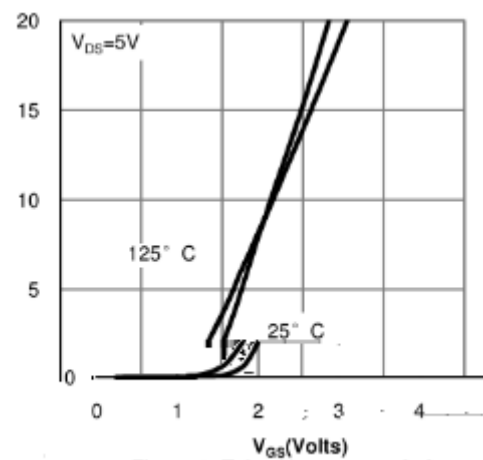


Figure 2: Transfer Characteristics

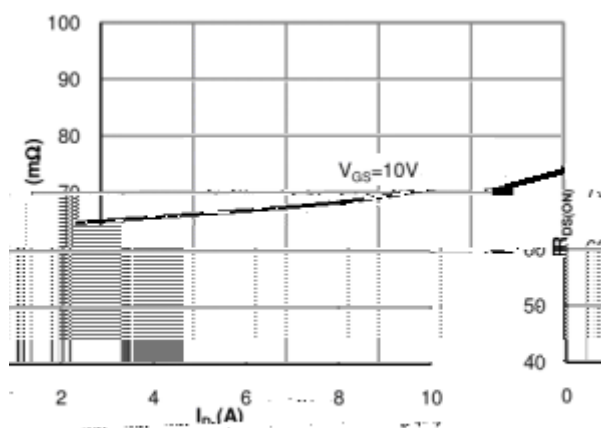


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

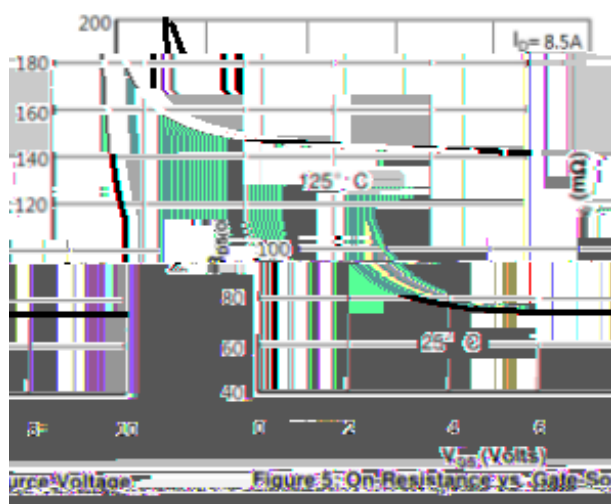
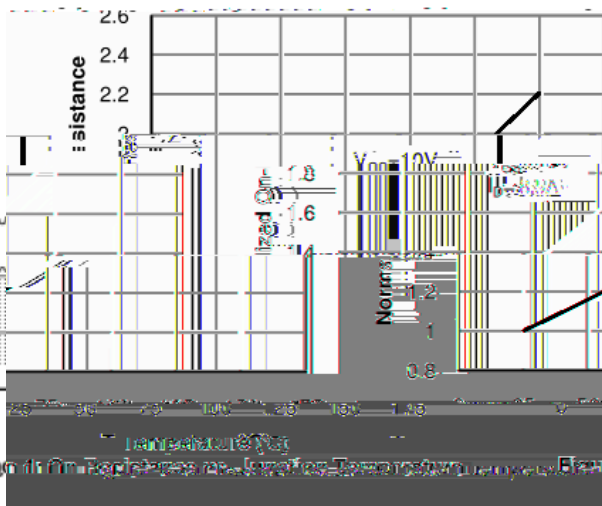


Figure 5: On-Resistance vs. Gate-Source Voltage

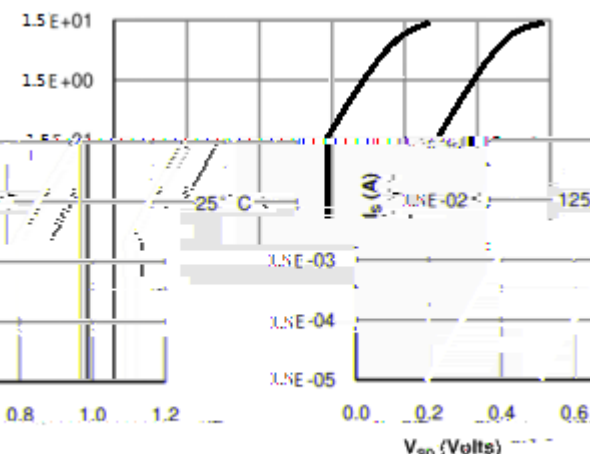
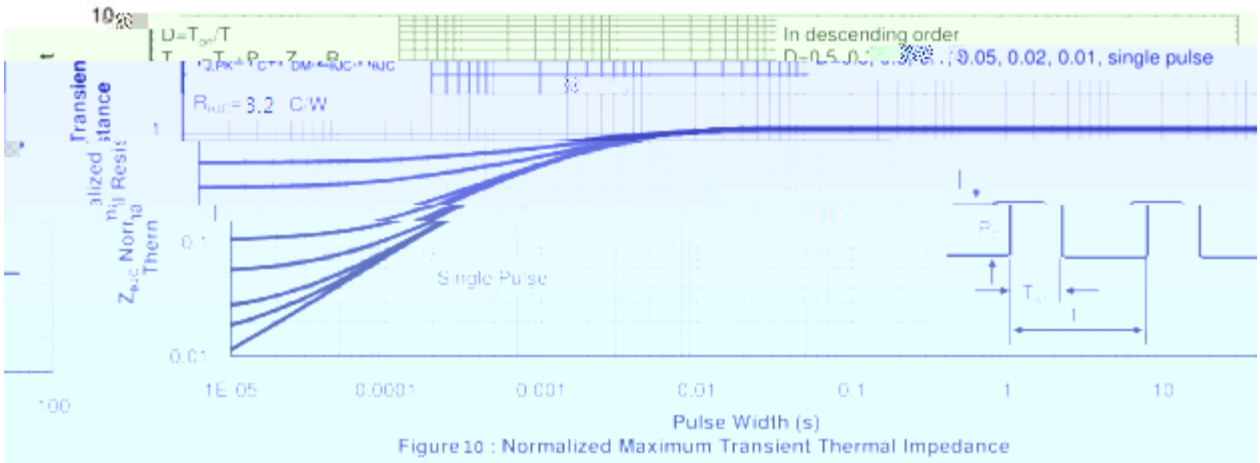
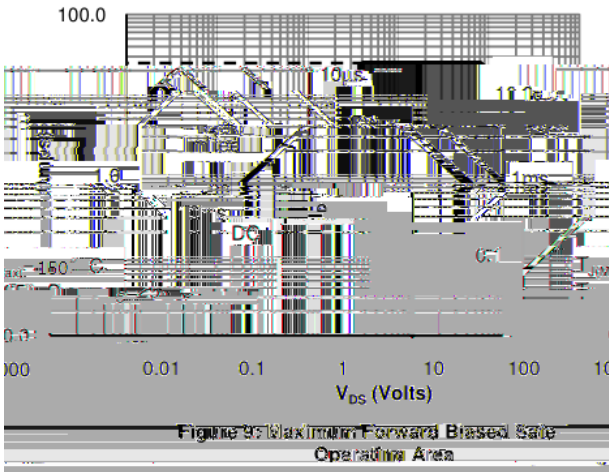
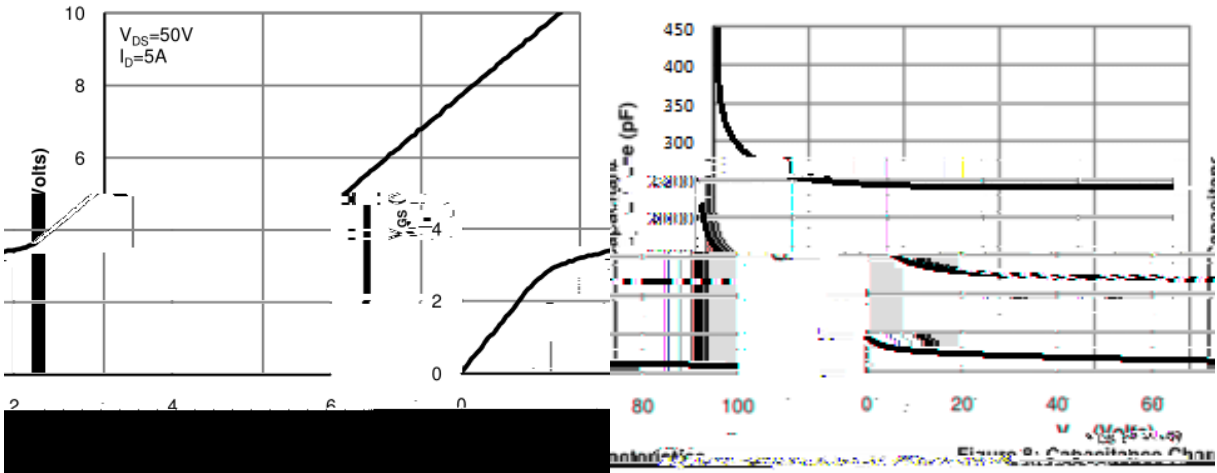


Figure 6: Body-Diode Characterist

/ Electrical Characteristic Curve



/ Package Dimensions

