

● Static Parameter Characteristics (Tj=25°C Unless otherwise specified)

PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} = 0V, I _D =-250μA	V	-60	—	—
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-60V, V _{GS} =0V	μA	—	—	-1.0
Gate-Body Leakage Current	I _{GSS}	V _{GS} = ±20V, V _{DS} =0V	nA	—	—	±100
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D =-250μA	V	-1.0	-2.0	-3.0
Static Drain-Source On-Resistance ⁽³⁾	R _{DS(ON)}	V _{GS} = -10V, I _D =-5A	mΩ	—	22	29
Forward Transconductance	g _{FS}	V _{DS} =-10V, I _D =-8A	S	—	15	—

● Dynamic Parameters

PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Input Capacitance	C _{iss}	V _{DS} =-30V, V _{GS} =0V, f=1MHZ	pF	—	3285	—
Output Capacitance	C _{oss}			—	195	—
Reverse Transfer Capacitance	C _{rss}			—	180	—

● Switching Parameters

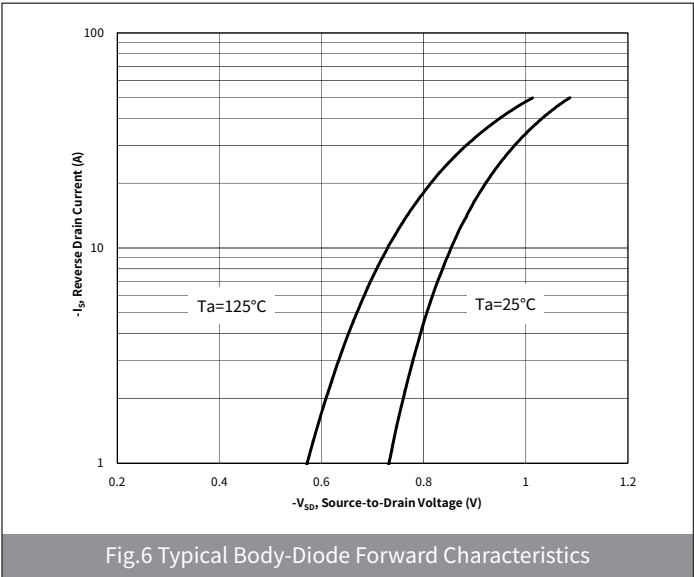
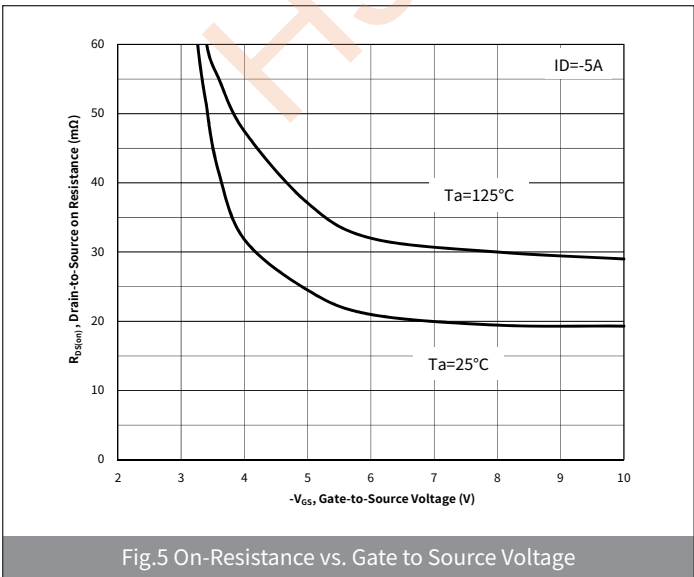
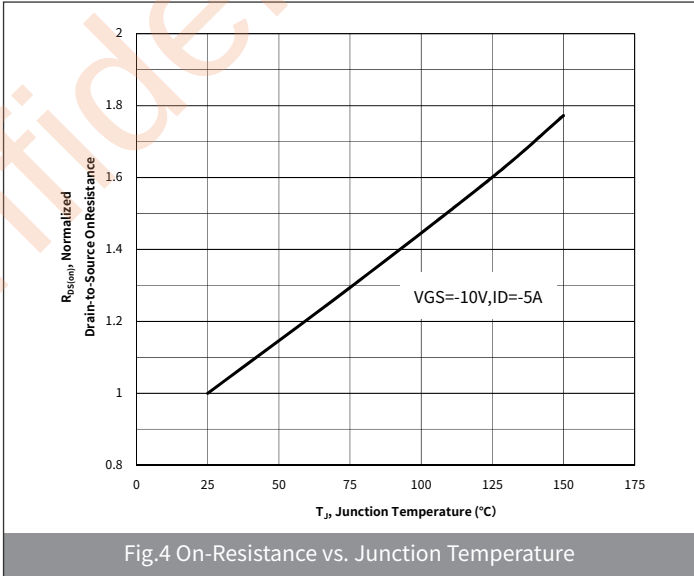
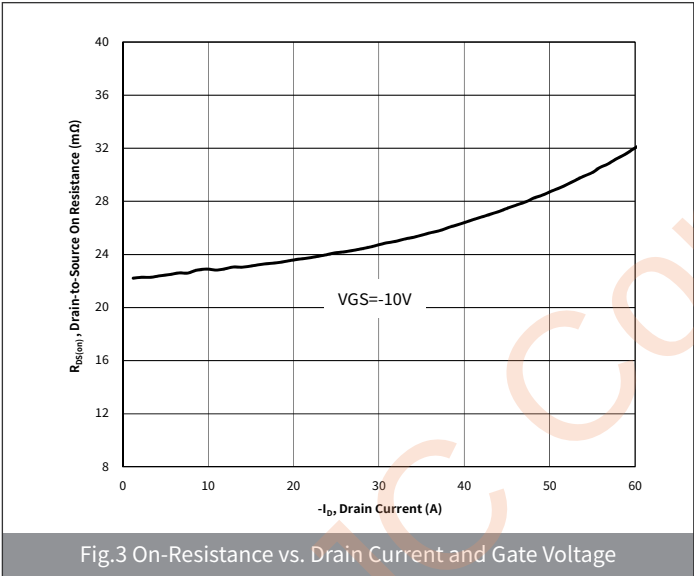
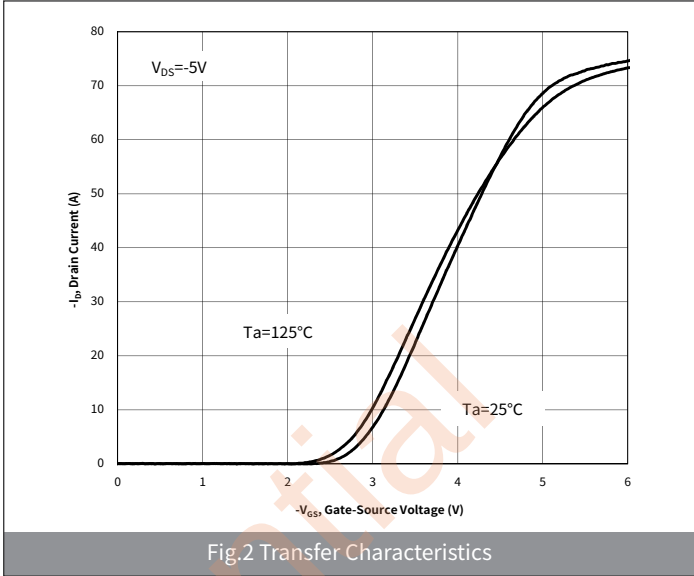
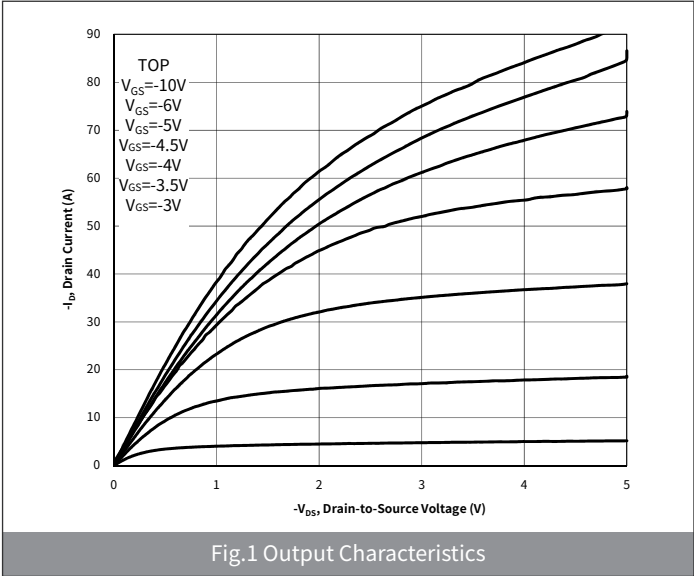
PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Turn-on Delay Time	t _{D(on)}	V _{GS} =-10V, V _{DD} =-30V, I _D =-5A, R _{GEN} =3Ω	nS	—	17.5	—
Turn-on Rise Time	t _r		nS	—	24	—
Turn-off Delay Time	t _{D(off)}		nS	—	35	—
Turn-off fall Time	t _f		nS	—	40	—
Total Gate Charge	Q _g	V _{DS} =-30V, I _D =-5A V _{GS} =-10V	nC	—	62.3	—
Gate-Source Charge	Q _{gs}		nC	—	8	—
Gate-Drain Charge	Q _{gd}		nC	—	13.8	—

● Drian-Source Diode Characteristics

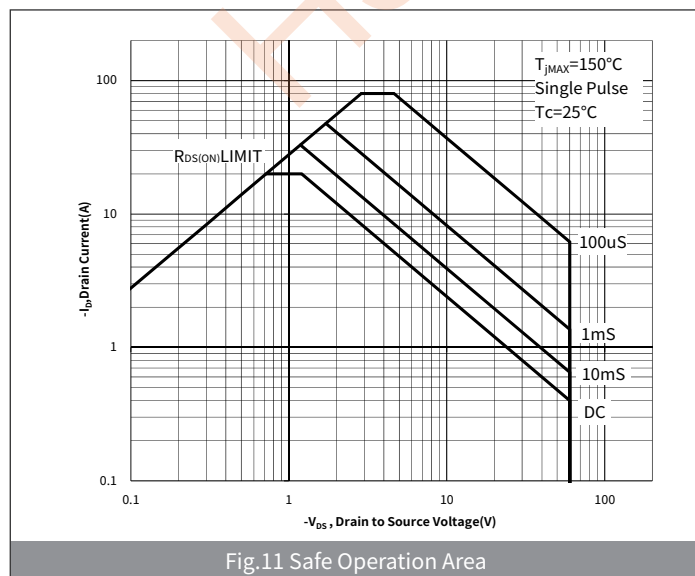
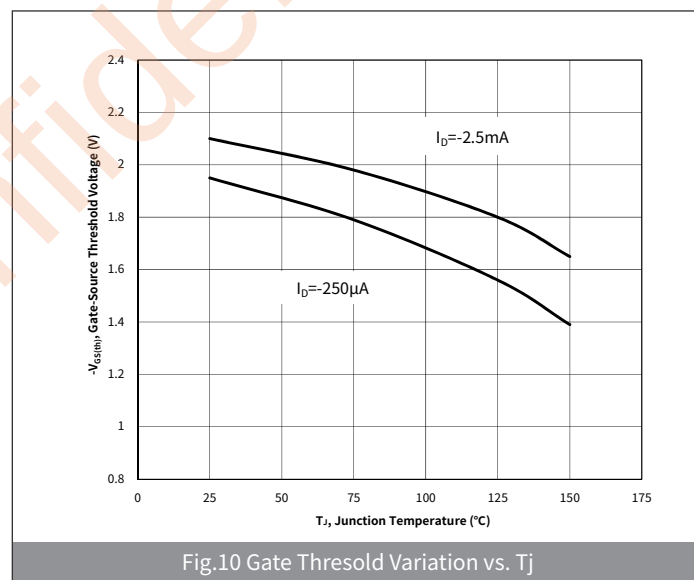
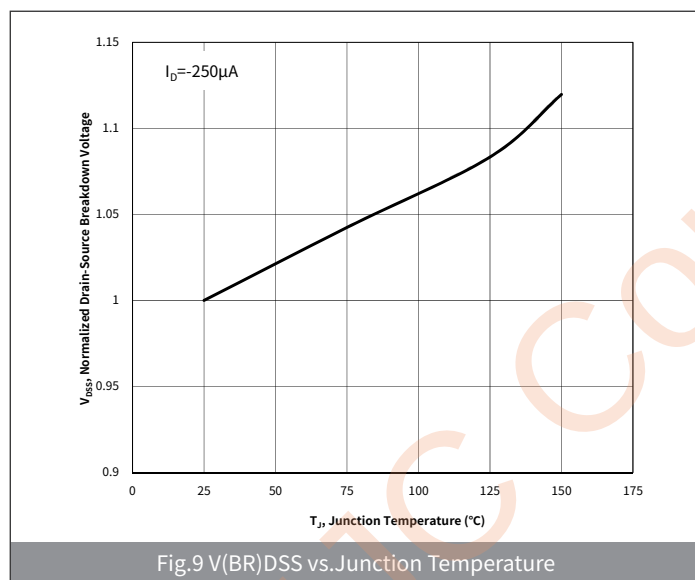
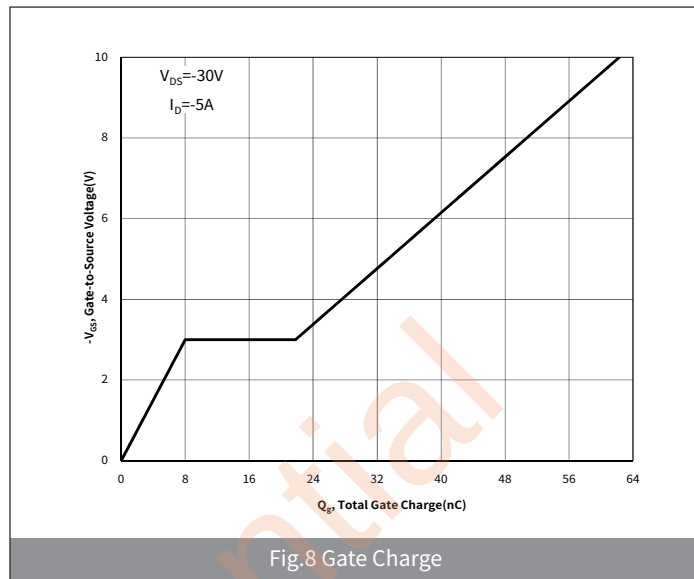
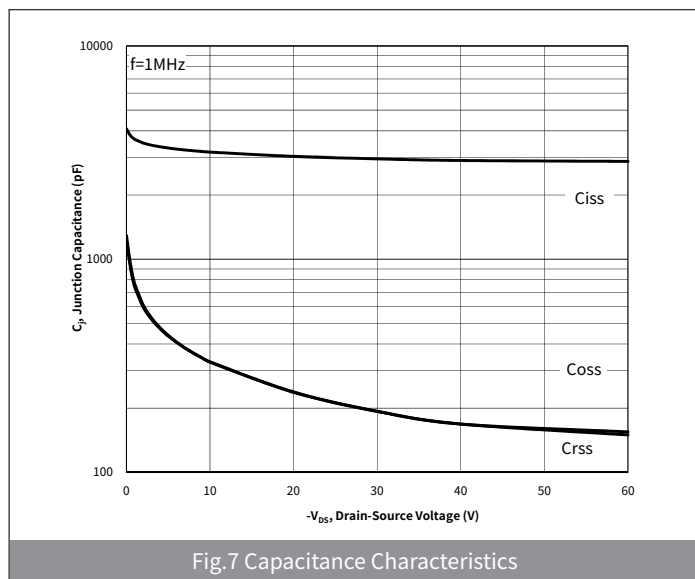
PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Diode Forward Voltage	V _{SD}	I _S =-10A, V _{GS} =0V	V	—	—	-1.2
Maximum Body-Diode Continuous Current	I _S	—	A	—	—	-20

Note :
(1)Repetitive Rating: Pulse width limited by maximum junction temperature.
(2)EAS condition : Tj=25°C ,VDD=-25V,VG=-10V,L=0.5mH,IAS=-16A,Rg=25Ω.
(3)Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.

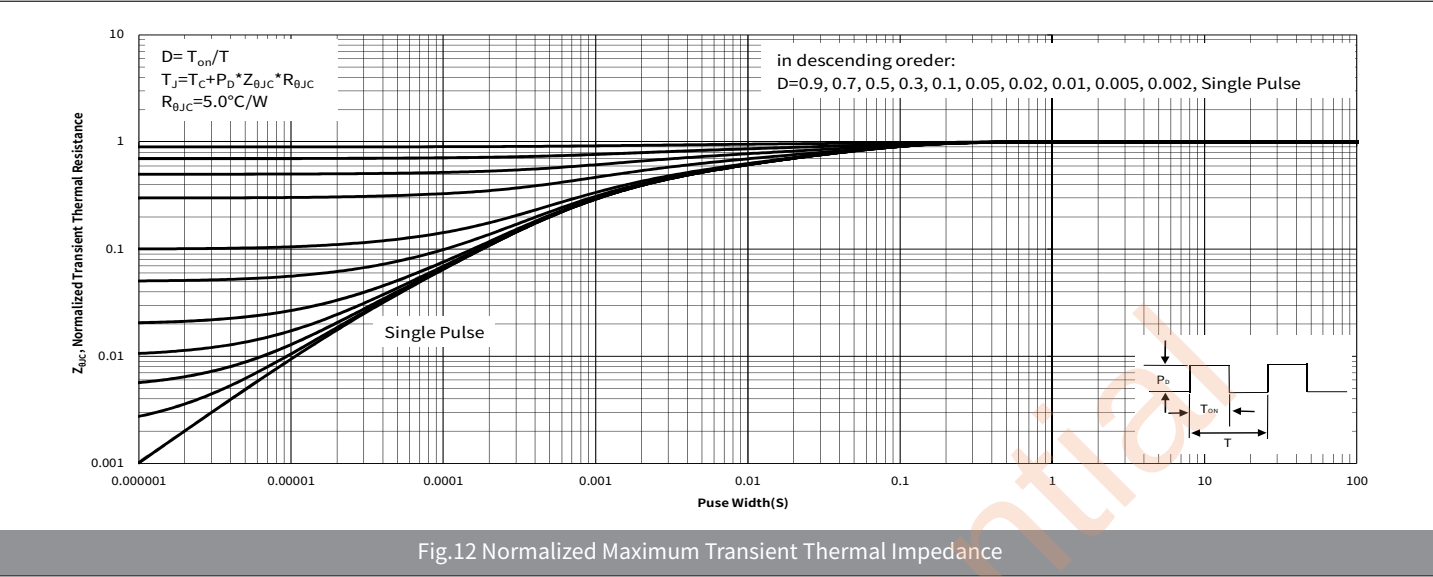
● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



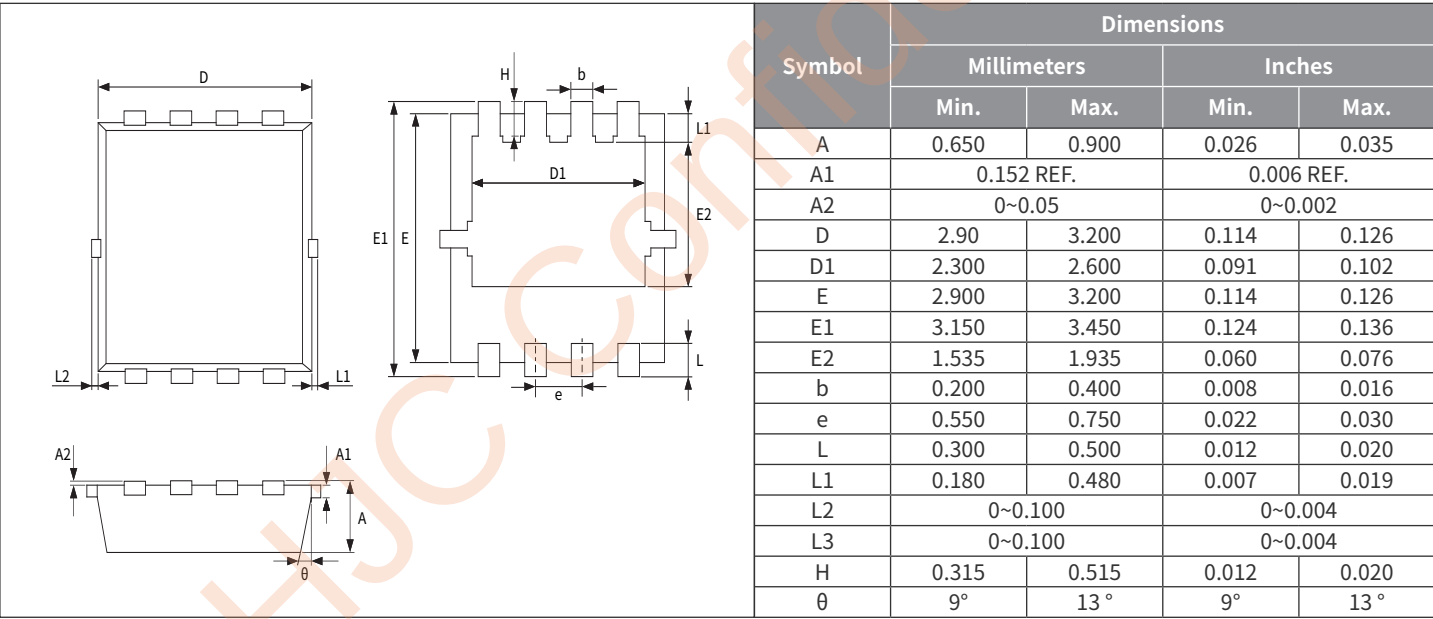
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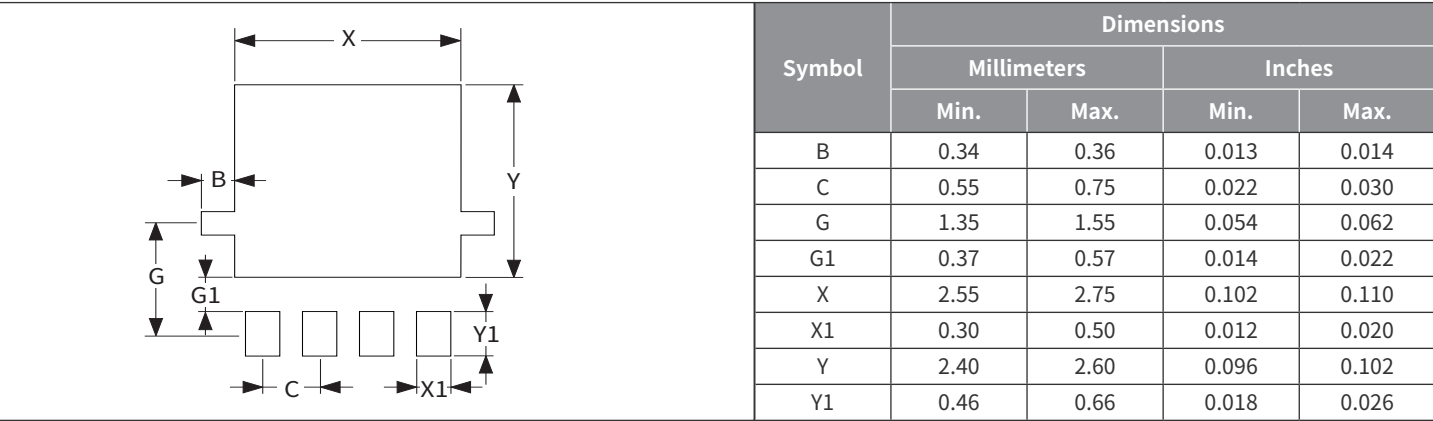
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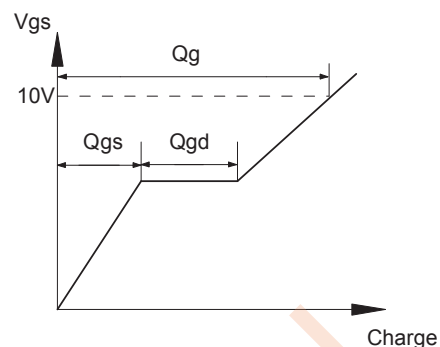
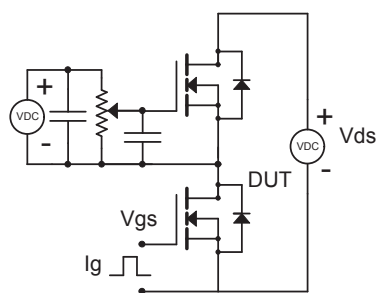
● Package Outline Dimensions (PDFN3030)



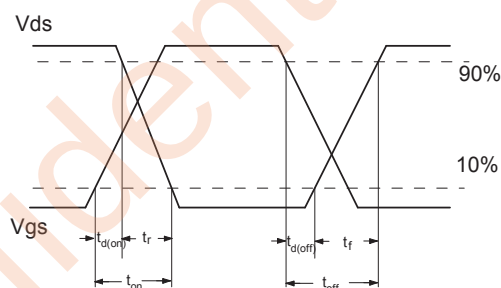
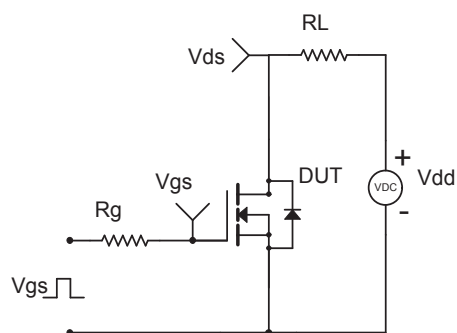
● Suggested Pad Layout



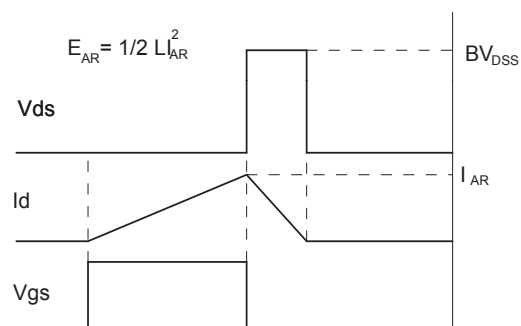
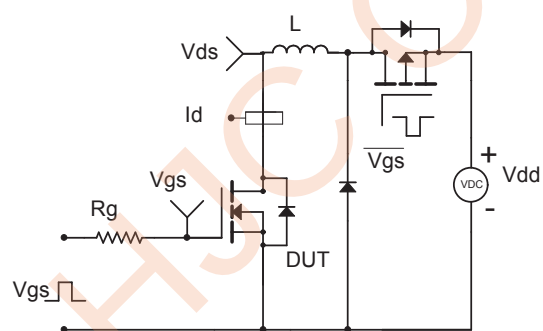
1. Gate Charge Test Circuit & Waveforms



2. Resistive Switching Test Circuit & Waveforms



3. Unclamped Inductive Switching (UIS) Test Circuit & Waveforms



4. Diode Recovery Test Circuit & Waveforms

