

● Static Parameter Characteristics (T_j=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	-100	—	—
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-100V, 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	-1.7	-2.5
Static Drain-Source On-Resistance ⁽²⁾	R _{DS(on)}	V _{GS} = -10V, I _D =-2A	mΩ	—	180	200
		V _{GS} = -4.5V, I _D =-1A		—	200	230

● Dynamic Parameters

PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Input Capacitance	C _{iss}	V _{DS} =-50V, V _{GS} =0V, f=1MHZ	pF	—	1310	—
Output Capacitance	C _{oss}			—	45	—
Reverse Transfer Capacitance	C _{rss}			—	35	—

● Switching Parameters

PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Turn-on Delay Time	t _{D(on)}	V _{GS} =-10V, V _{DD} =-50V, I _D =-2A, R _{GEN} =3Ω	nS	—	6.6	—
Turn-on Rise Time	t _r		nS	—	8	—
Turn-off Delay Time	t _{D(off)}		nS	—	48	—
Turn-off fall Time	t _f		nS	—	30	—
Total Gate Charge	Q _g	V _{DS} =-50V, I _D =-2A V _{GS} =-10V	nC	—	19	—
Gate-Source Charge	Q _{gs}		nC	—	4.3	—
Gate-Drain Charge	Q _{gd}		nC	—	4	—

● Drian-Source Diode Characteristics

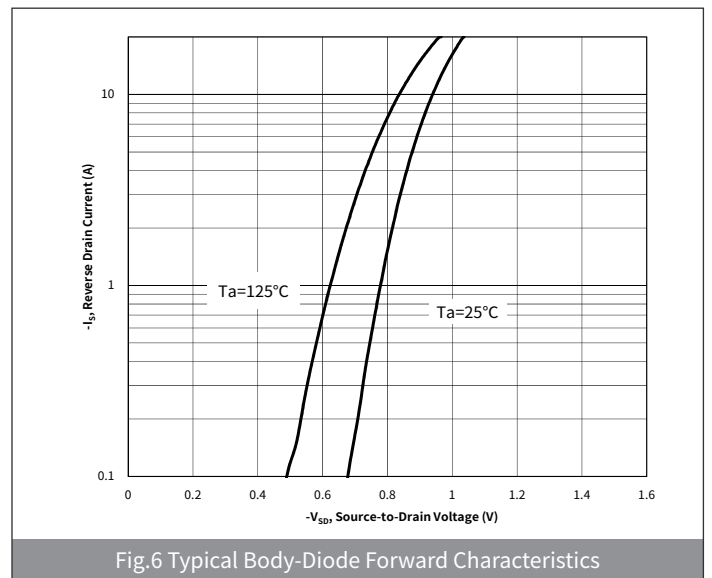
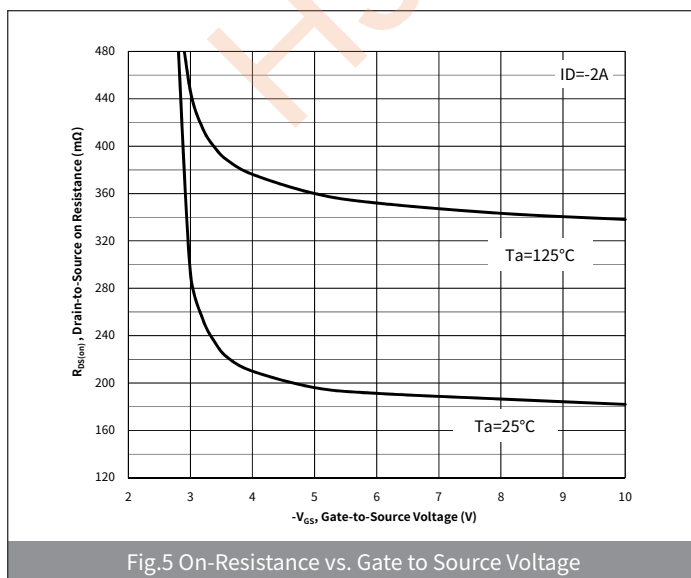
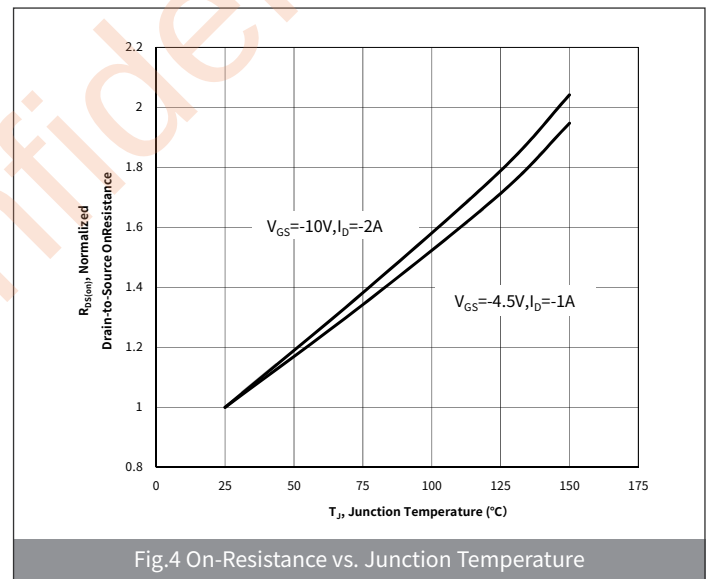
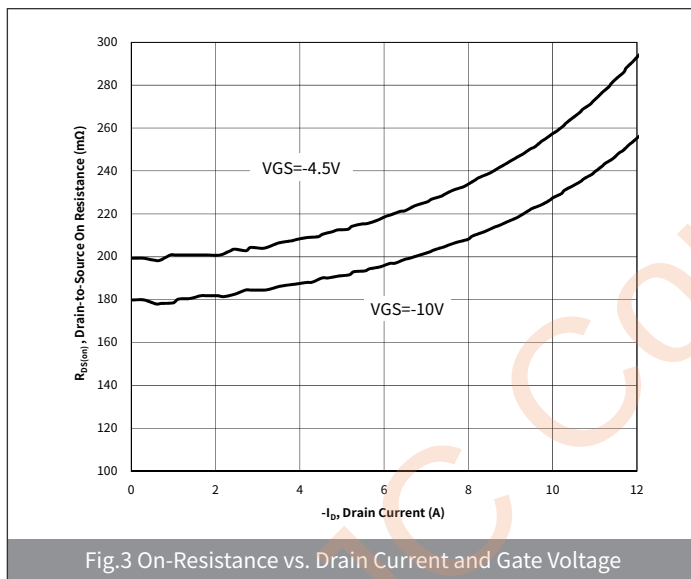
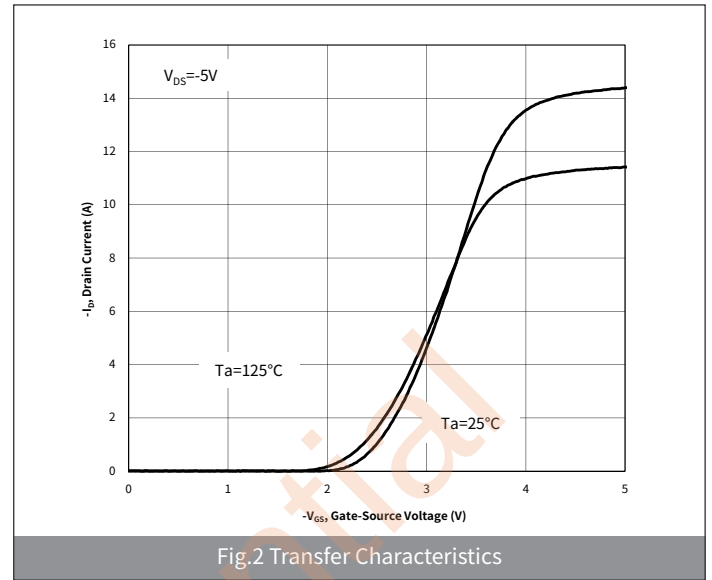
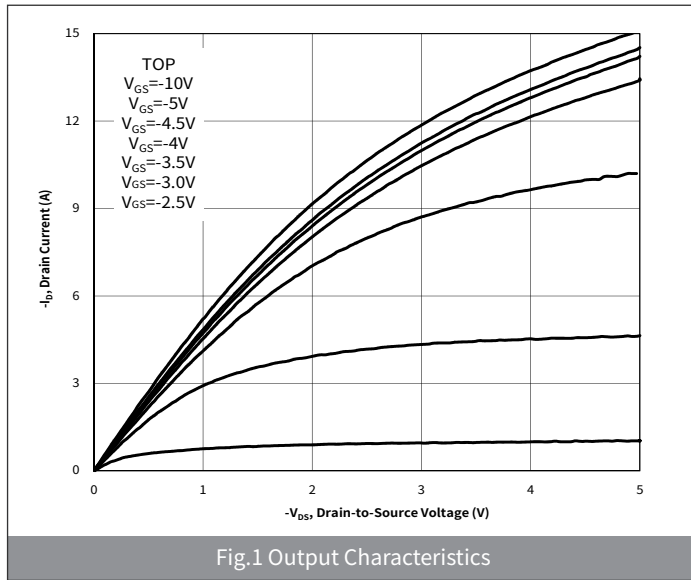
PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Diode Forward Voltage	V _{SD}	I _S =-2A, V _{GS} =0V	V	—	—	1.2
Maximum Body-Diode Continuous Current	I _S	—	A	—	—	2
Reverse Recovery Time	T _{rr}	I _F = -2A, dI/dt = -100A/μs	nS	—	120	—
Reverse Recovery Charge	Q _{rr}		nC	—	65	—

Note :

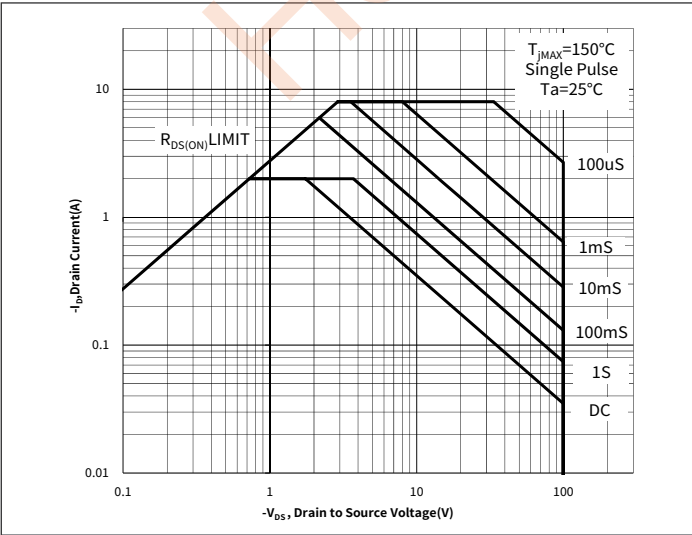
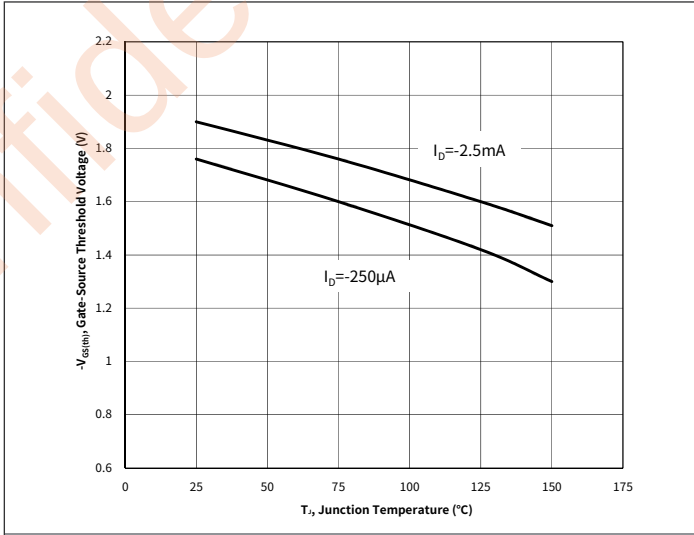
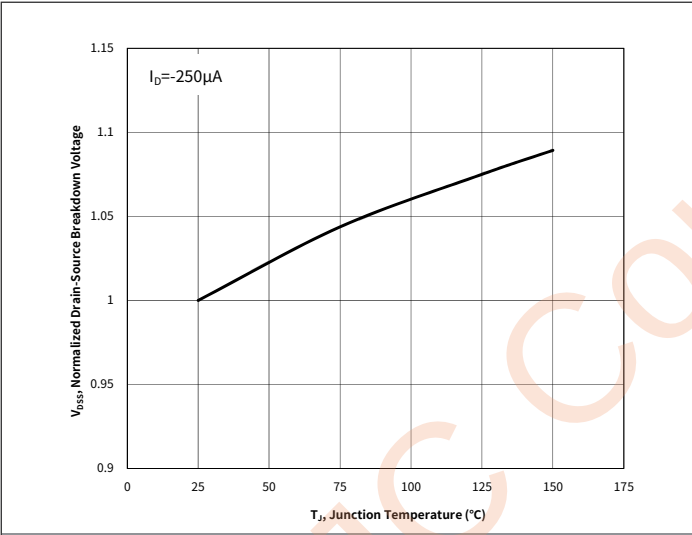
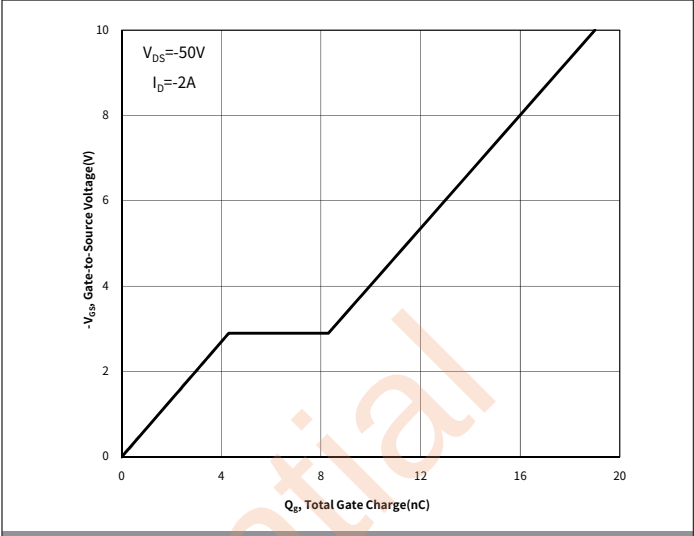
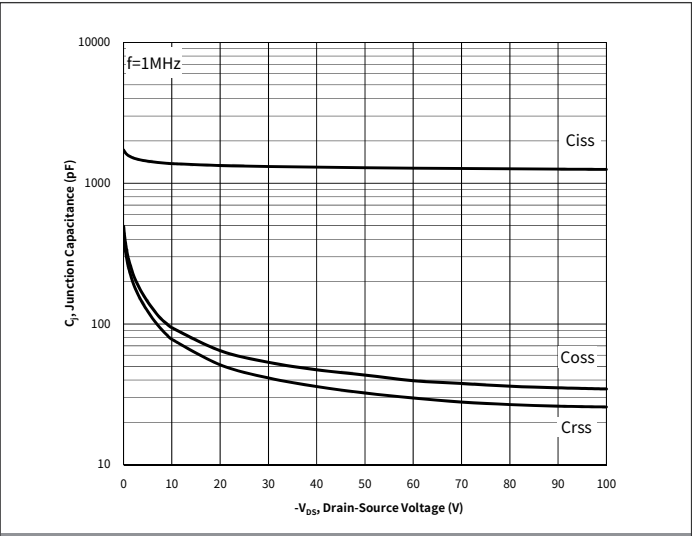
(1) Repetitive Rating: Pulse width limited by maximum junction temperature.

(2) Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.

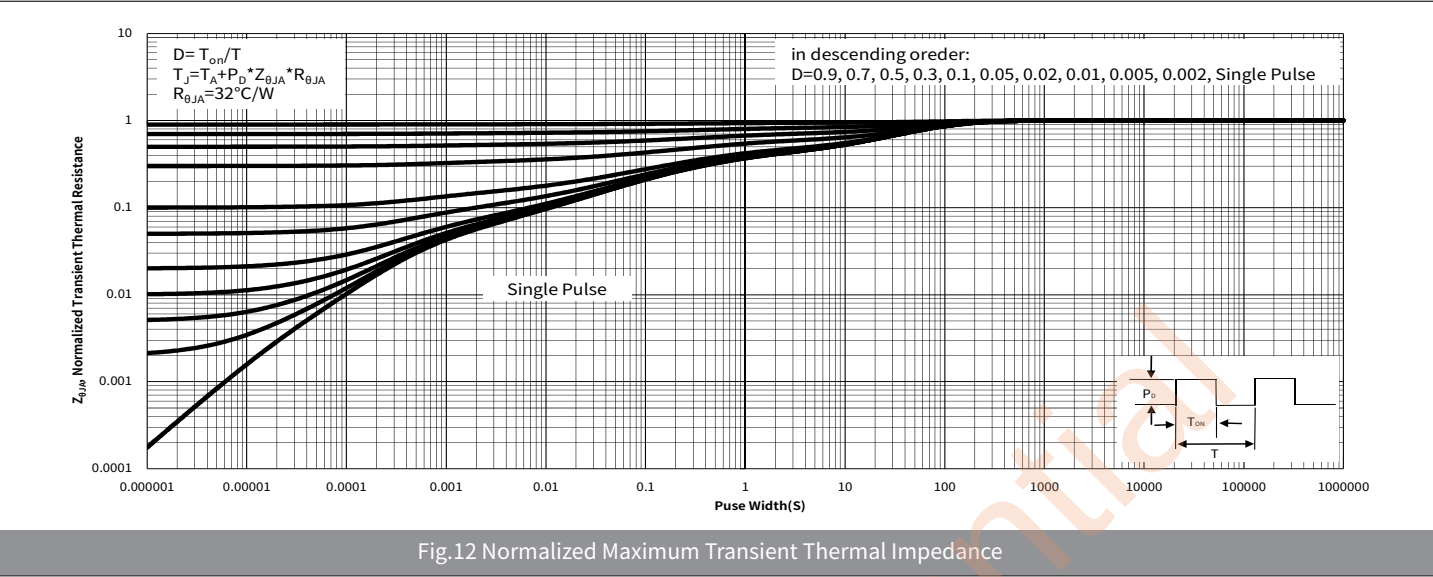
● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



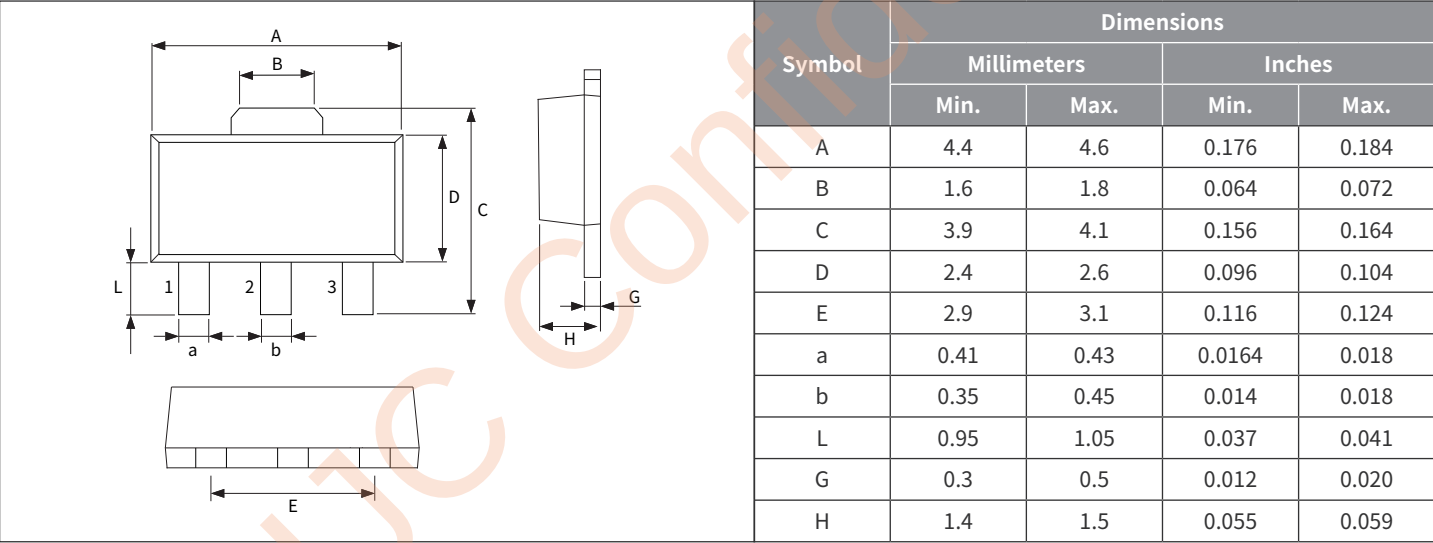
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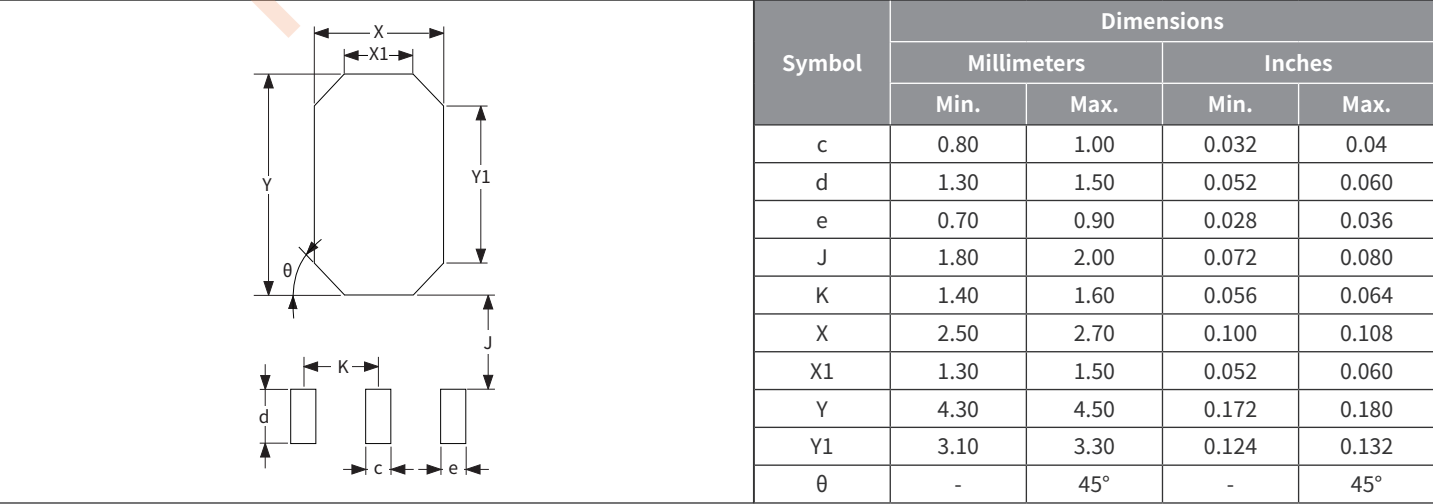
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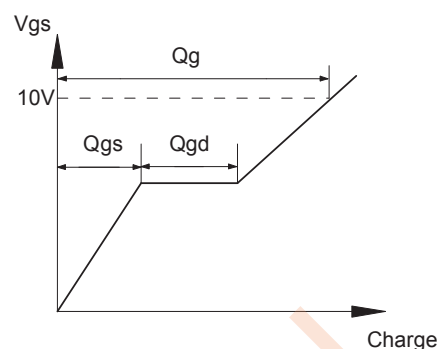
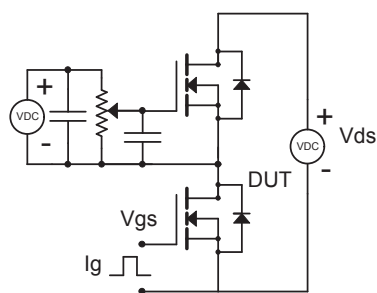
● Package Outline Dimensions (SOT-89)



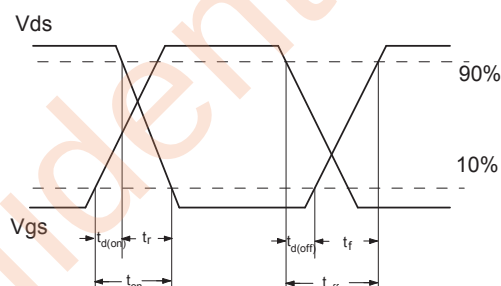
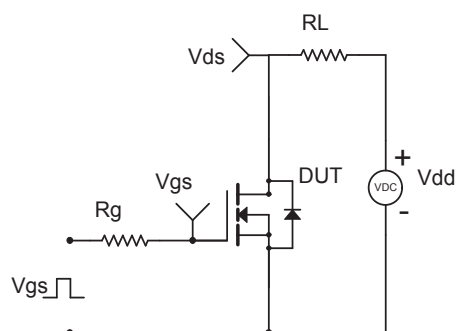
● Suggested Pad Layout



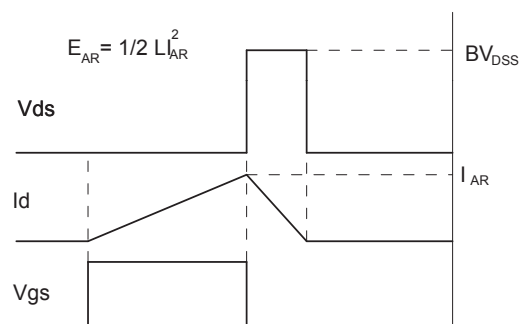
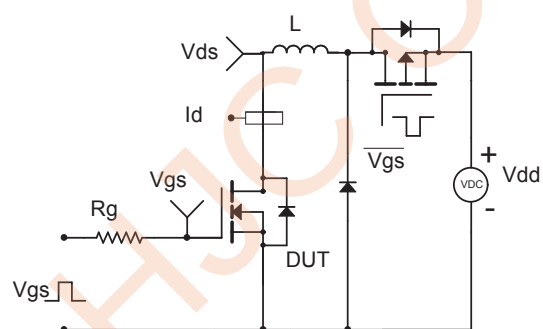
1. Gate Charge Test Circuit & Waveforms



2. Resistive Switching Test Circuit & Waveforms



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



4. Diode Recovery Test Circuit & Waveforms

