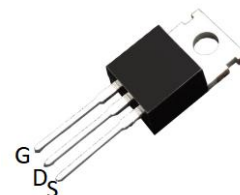
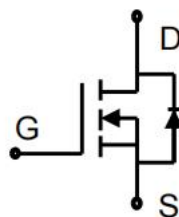


N-Channel Enhancement Mode MOSFET 30V/150A

Parameter	Value	Unit
V _{DSS}	30	V
R _{DS(on)}	2.55	mΩ
I _D	150	A



TO-220

FEATURES

- Ultra-Low R_{DS(on)}
- Low gate charge (typ. Q_g=48nC)
- 100% UIS tested

APPLICATIONS

- Battery protection
- Load switch
- Uninterruptible power supply

MAXIMUM RATED VALUES(at TC=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V _{DS}	30	V
Gate-Source Voltage	V _{GS}	±20	V
Continue Drain Current	I _D	150	A
Pulsed Drain Current (Note1)	I _{DM}	600	A
Power Dissipation	P _D	110	W
Single Pulse Avalanche Energy (Note1)	E _{AS}	360	mJ
Operating Temperature Range	T _J	150	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C
Thermal Resistance, Junction to Case	R _{θJC}	1.5	°C/W
Thermal Resistance, Junction to Ambient	R _{θJA}	62	°C/W

Note1:Pulse test: 300 μs pulse width, 2 % duty cycle

ELECTRICAL CHARACTERISTICS(at TC=25°C unless otherwise specified)

Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{GS} =0 V, I _D =250μA	BV _{DSS}	30	-	-	V
Drain-Source Leakage Current	V _{DS} =30V, V _{GS} =0 V	I _{DSS}	-	-	1	μA
Gate Leakage Current	V _{GS} = ± 20V, V _{DS} =0V	I _{GSS}	-	-	±100	nA
Gate-Source Threshold Voltage	V _{DS} =V _{GS} , I _D =250μA	V _{GS(th)}	1.2	-	2.2	V

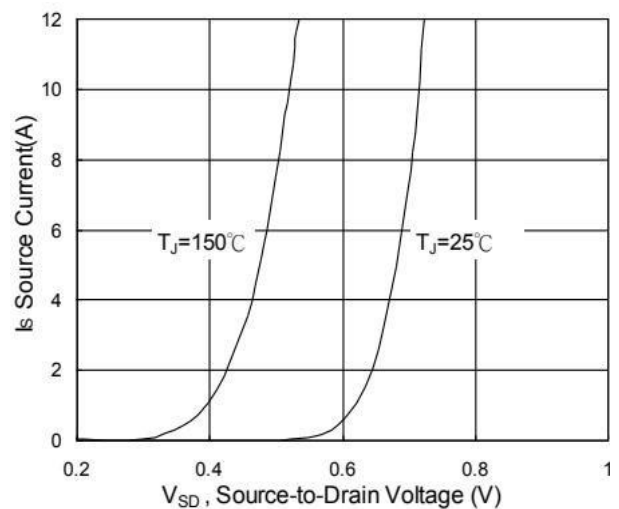
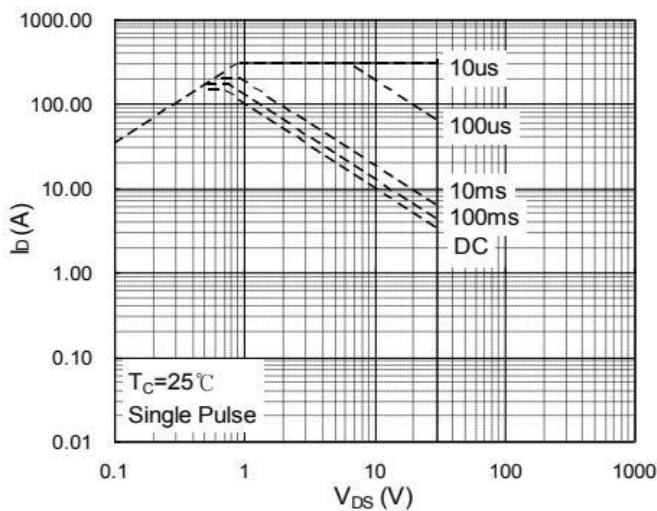
Drain-Source On-State Resistance	VGS=10V, ID=10A	RDS(on)	-	2.55	3	mΩ
	VGS=4.5V, ID=20A		-	4	6	mΩ
Forward Transconductance	VDS=5V, ID=30A	gfs	30	-	-	S
Input Capacitance	VDS=15V, VGS=0V, f=1MHz	Ciss	-	5100	-	pF
Output Capacitance		Coss	-	1086	-	pF
Reverse Transfer Capacitance		Crss	-	612	-	pF
Turn-on Delay Time(Note2)	VDD=15V, VGS=10V, RG=3Ω, ID=30A	td(ON)	-	22	-	ns
Rise Time(Note2)		tr	-	15	-	ns
Turn-Off Delay Time(Note2)		td(OFF)	-	73	-	ns
Fall Time(Note2)		tf	-	35	-	ns
Total Gate Charge(Note2)	VDS=15V, VGS=10V, ID=30A	QG	-	48	-	nC
Gate to Source Charge(Note2)		QGS	-	11	-	nC
Gate to Drain Charge(Note2)		QGD	-	21	-	nC

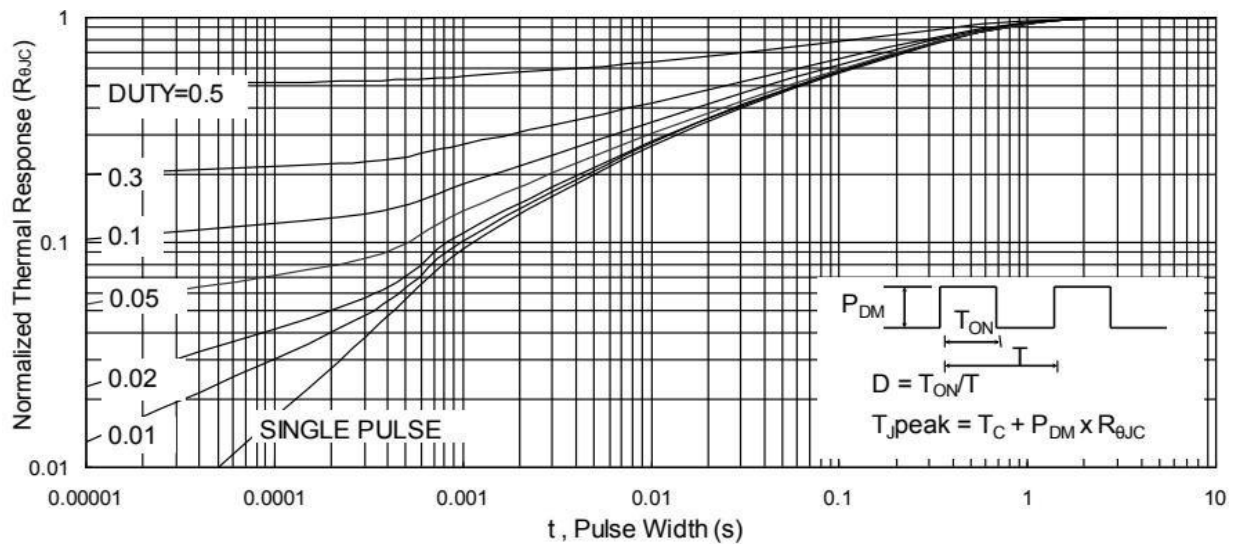
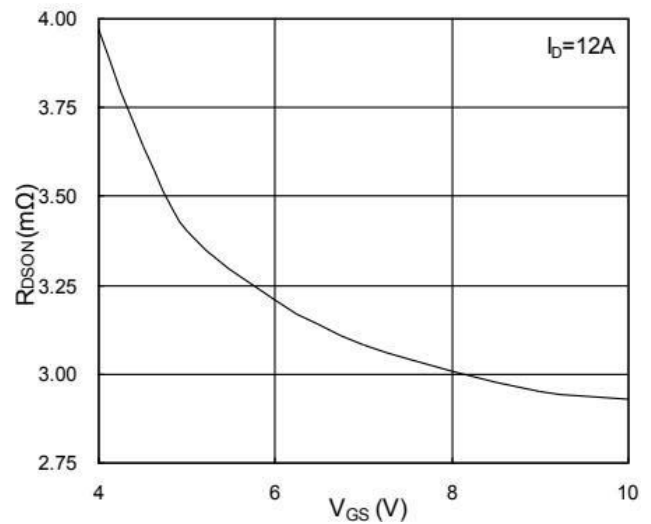
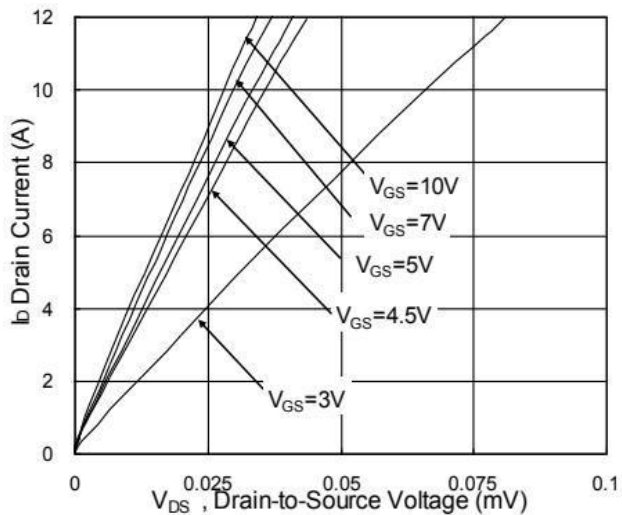
SOURCE-DRAIN DIODE CHARACTERISTICS (at Ta=25°C unless otherwise specified)

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Maximun Body-Diode Continuous Current		IS	-	-	150	A
Maximun Body-Diode Pulsed Current(Note2)		ISM	-	-	600	A
Drain-Source Diode Forward Voltage	VGS=0V, IS=1A, TJ=25°C	VSD	-	-	1.2	V

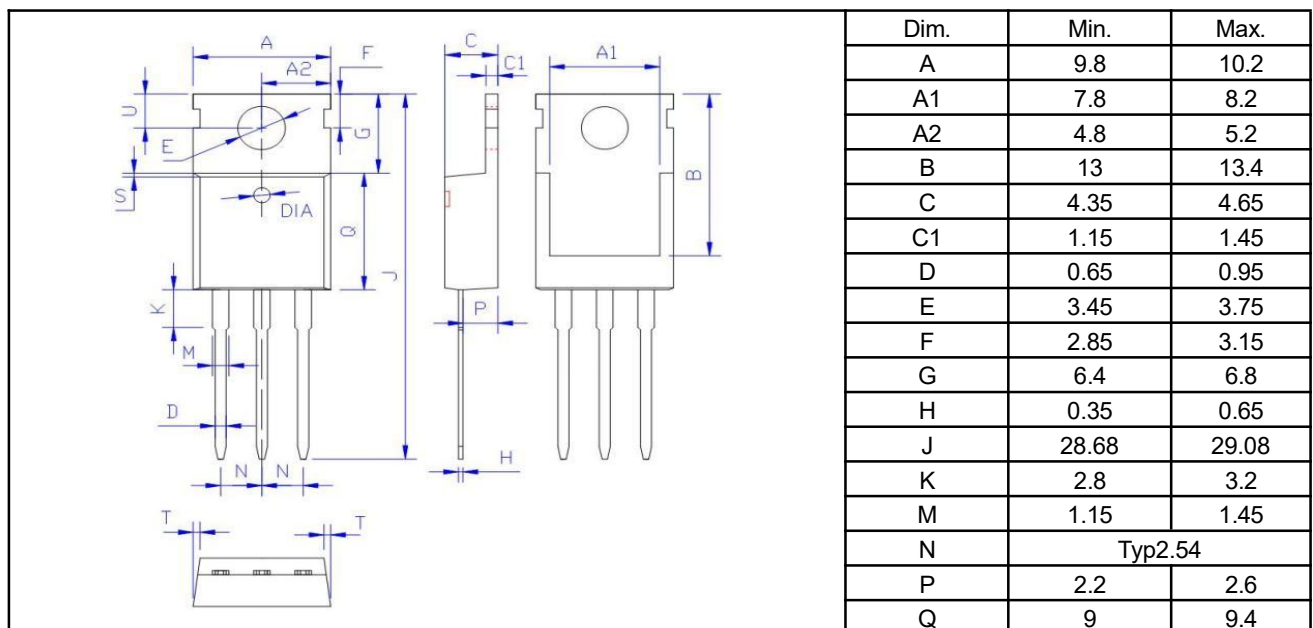
Note2:Pulse test: 300 μs pulse width, 2 % duty cycle

CHARACTERISTICS DIAGRAMS





PACKAGE OUTLINE



	S	0.15	0.35
	T	0.15	0.35
	U	2.65	2.95
	DIA	Dia 1.5±0.1	D MAX0.5
	All Dimensions in millimeter		

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