

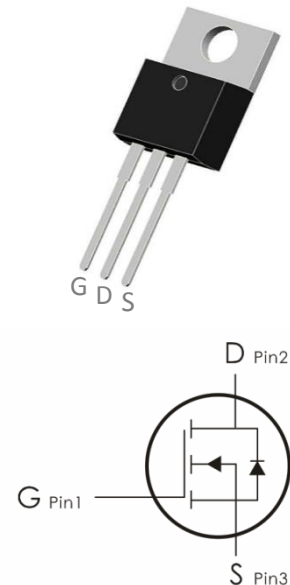
Description:

This N-Channel MOSFET uses advanced trench technology and design to provide excellent $R_{DS(on)}$ with low gate charge.

It can be used in a wide variety of applications.

Features:

- 1) $V_{DS}=100V, I_D=50A, R_{DS(ON)} < 22m\Omega @ V_{GS}=10V$
- 2) Low gate charge.
- 3) Green device available.
- 4) Advanced high cell density trench technology for ultra $R_{DS(ON)}$.
- 5) Excellent package for good heat dissipation.



Absolute Maximum Ratings: ($T_C=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Ratings	Units
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Continuous Drain Current- $T_C=25^\circ C$	50	A
	Continuous Drain Current- $T_C=100^\circ C$	30	
I_{DM}	Pulsed Drain Current	200	
I_{AR}	Avalanche Current	15	A
E_{AS}	Single Pulse Avalanche Energy	170	mJ
P_D	Power Dissipation	160	W
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55-+150	$^\circ C$

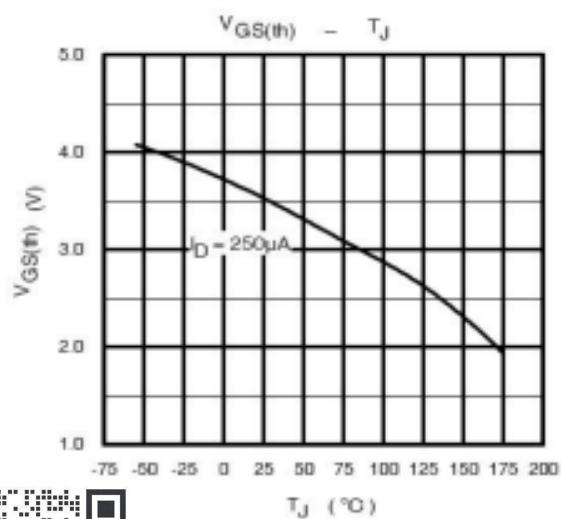
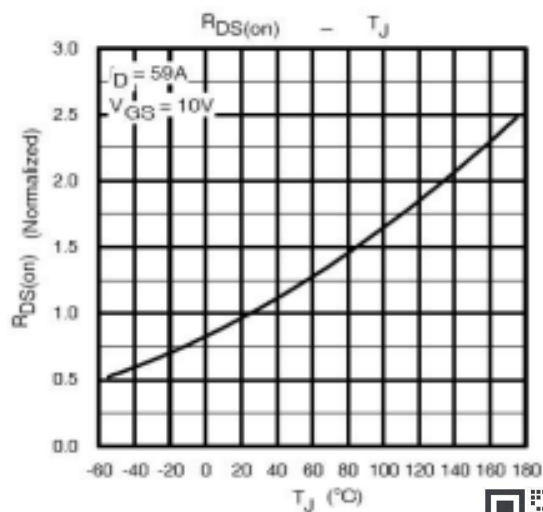
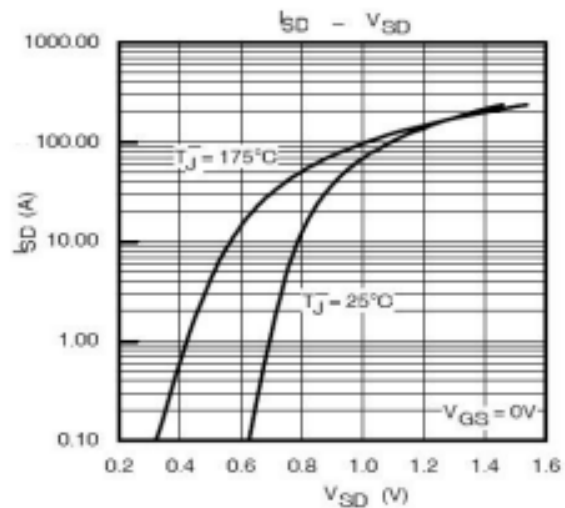
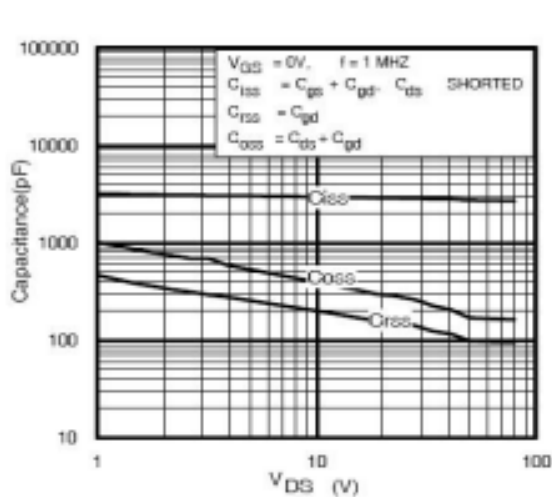
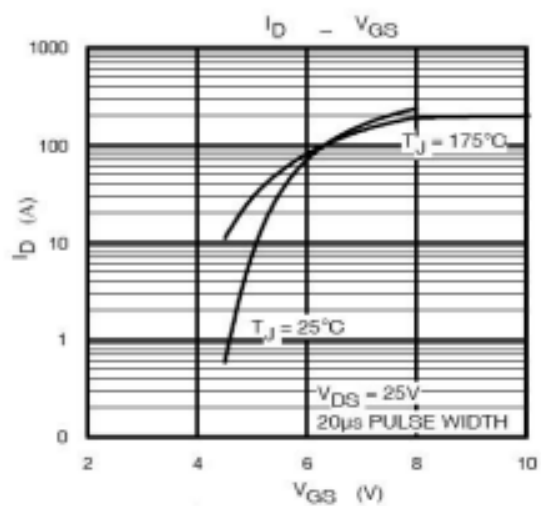
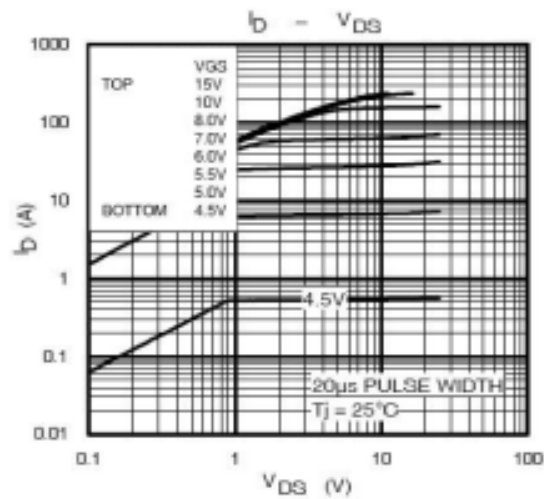
Thermal Characteristics:

Symbol	Parameter	Max	Units
$R_{\theta JA}$	Junction to Ambient	40	$^\circ C/W$

Electrical Characteristics: ($T_c=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
Off Characteristics						
BV _{DSS}	Drain-Sourctce Breakdown Voltage	V _{GS} =0V,I _D =250 μ A	100	---	---	V
I _{DSS}	Zero Gate Voltage Drain Current	V _{GS} =0V, V _{DS} =100V	---	---	10	μ A
		V _{GS} =0V, V _{DS} =100V,T _j =125℃	---	---	250	
I _{GSS}	Gate-Source Leakage Current	V _{GS} =± 20V, V _{DS} =0A	---	---	±0.2	nA
On Characteristics						
V _{GS(th)}	GATE-Source Threshold Voltage	V _{GS} =V _{DS} , I _D =250 μ A	2	---	4	V
R _{DS(ON)}	Drain-Source On Resistance	V _{GS} =10V,I _D =1A	---	18	22	m Ω
G _{FS}	Forward Transconductance	V _{DS} =15V, I _D =10A, Δ I _D =1A	---	---	25	S
V _{SD}	Forward On Voltage	V _{GS} =0V I _S =35A T _J =25℃	---	---	1.3	V
Dynamic Characteristics						
C _{iss}	Input Capacitance	V _{DS} =25V, V _{GS} =0V, f=1MHz	---	2900	---	pF
C _{oss}	Output Capacitance		---	290	---	
C _{rss}	Reverse Transfer Capacitance		---	150	---	
Switching Characteristics						
t _{d(on)}	Turn-On Delay Time	V _{DD} =50V, I _D =35A, R _{GEN} =6.8 Ω .V _{GS} =10V	---	17	---	ns
t _r	Rise Time		---	77	---	ns
t _{d(off)}	Turn-Off Delay Time		---	41	---	ns
t _f	Fall Time		---	56	---	ns

Typical Characteristics: ($T_C=25^\circ\text{C}$ unless otherwise noted)



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