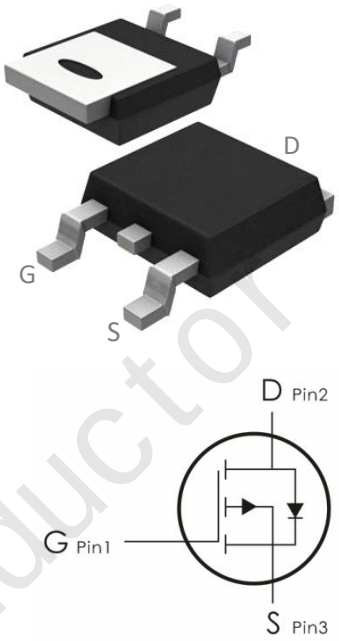
Description：

This P-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}=-30V,I_D=-80A,$R_{DS(ON)}$<7.5 mΩ @V_{GS}=-10 V
2) Low gate charge.
3) Green device available.
4) Advanced high cell denity trench technology for ultra low $R_{DS(ON)}$.
5) Excellent package for good heat dissipation.

Absolute Maximum Ratings：(T_C=25℃ unless otherwise noted)

Symbol	Parameter	Ratings	Units
V_{DS}	Drain-Source Voltage	-30	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Continuous Drain Current-T_C=25℃	-80	A
	Continuous Drain Current-T_C=100℃	-49	A
I_{DM}	Pulsed Drain Current[note1]	-260	A
E_{AS}	Single Pulsed Avalanche Energy [note2]	164	mJ
P_D	Total Power Dissipation	84	W
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +175	℃

Thermal Characteristics：

Symbol	Parameter	Max	Units
$R_{\theta JC}$	Thermal Resistance,Junction to Case	1.5	℃/W

Electrical Characteristics: (T_J=25℃ unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
Off Characteristics						
BV_{DSS}	Drain-Sourtce Breakdown Voltage	V_{GS}=0V,I_D=250μA	-30	---	---	V
I_{DSS}	Zero Gate Voltage Drain Current	V_{GS}=0V, V_{DS}=-30V,T_J=25℃	---	---	-1	μA
I_{GSS}	Gate-Source Leakage Current	V_{GS}=±20V, V_{DS}=0A	---	---	±100	nA
On Characteristics						
$V_{GS(th)}$	GATE-Source Threshold Voltage	V_{GS}=V_{DS}, I_D=250μA	-1.0	-1.6	-2.5	V
$R_{DS(ON)}$	Static Drain-Source On-Resistance[note3]	V_{GS}=-10V,I_D=-30A	---	5.8	7.5	mΩ
		V_{GS}=-4.5V,I_D=-20A	---	9	12.6	
Dynamic Characteristics						
C_{iss}	Input Capacitance	V_{DS}=-15V, V_{GS}=0V, f=1MHz	---	4550	---	pF
C_{oss}	Output Capacitance		---	525	---	
C_{rss}	Reverse Transfer Capacitance		---	480	---	
Switching Characteristics						
$t_{d(on)}$	Turn-On Delay Time	V_{DD}=-15V, I_D=-30A, V_{GS}=-10V, R_G=2.5Ω	---	19	---	ns
t_r	Rise Time		---	15	---	ns
$t_{d(off)}$	Turn-Off Delay Time		---	65	---	ns
t_f	Fall Time		---	36	---	ns
Q_g	Total Gate Charge	V_{GS}=-10V, V_{DS}=-15V, I_D=-20A	---	45	---	nC
Q_{gs}	Gate-Source Charge		---	8	---	nC
Q_{gd}	Gate-Drain “Miller” Charge		---	12	---	nC
Drain-Source Diode Characteristics						
V_{SD}	Drain Diode Forward Voltage	V_{GS}=0V,I_S=-30A,T_J=25℃	---	-0.8	-1.2	V

I_S	Continuous Source Current	$V_G=V_D=0V$, Force Current	---	---	-80	A
I_{SM}	Pulsed Source Current		---	---	-240	A

Notes:1. Repetitive Rating: Pulse Width Limited by Maximum Junction Temperature
2. E_{AS} condition: T_J=25℃, V_{DD}= -15V, V_G= -10V, R_G=25Ω, L=0.5mH, I_{AS}= -24A
3. Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%

Typical Characteristics: (T_C=25℃ unless otherwise noted)

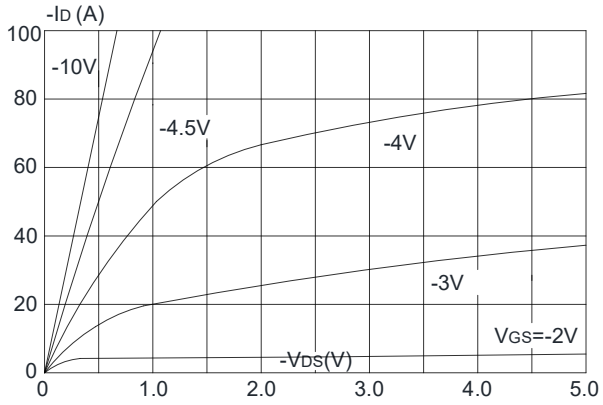


Figure1: Output Characteristics

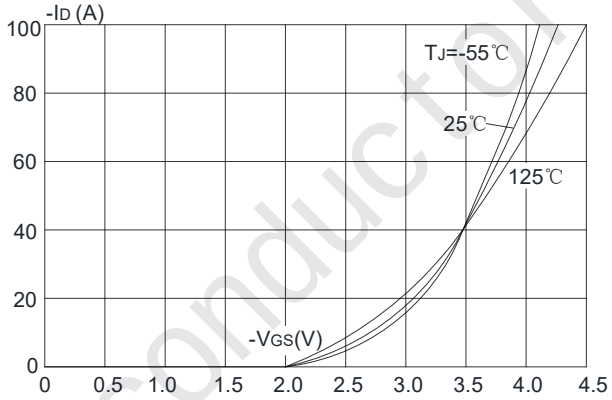


Figure 2: Typical Transfer Characteristics

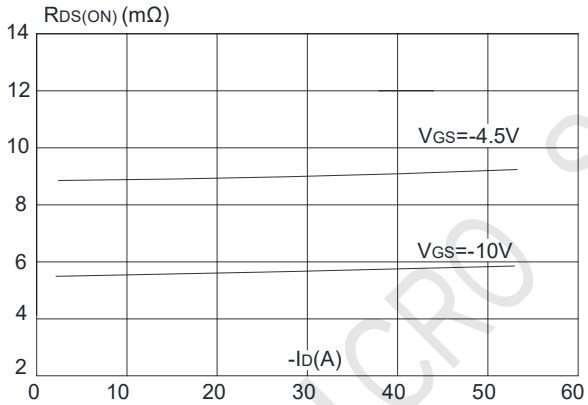


Figure 3: On-resistance vs. Drain Current

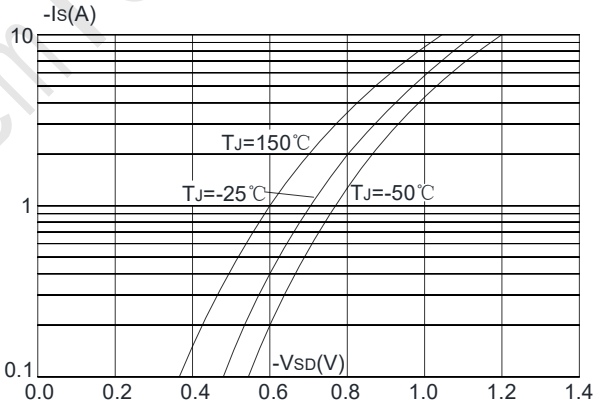


Figure 4: Body Diode Characteristics

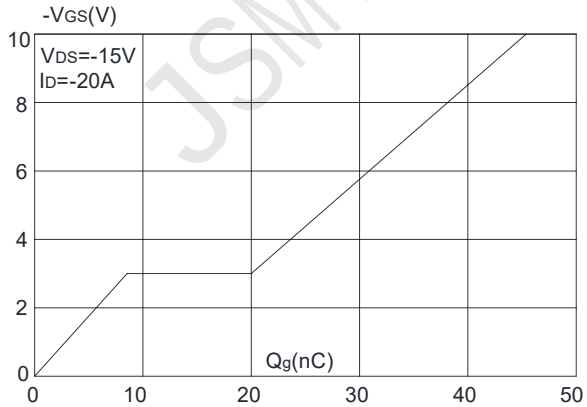


Figure 5: Gate Charge Characteristics

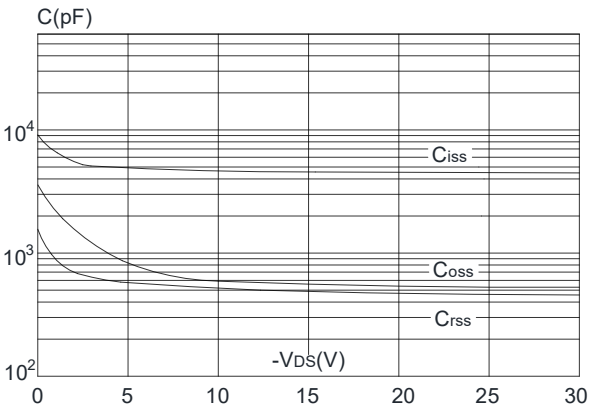


Figure 6: Capacitance Characteristics

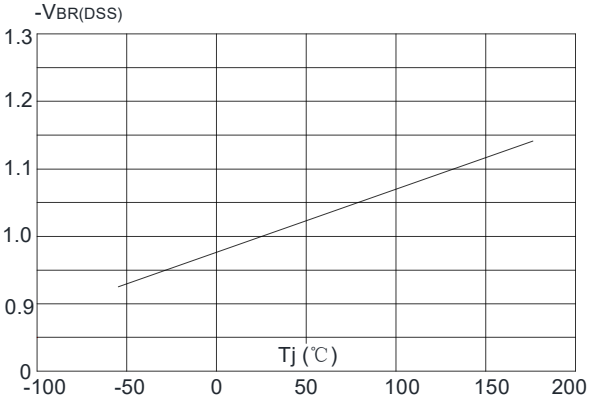


Figure 7: Normalized Breakdown Voltage vs. Junction Temperature

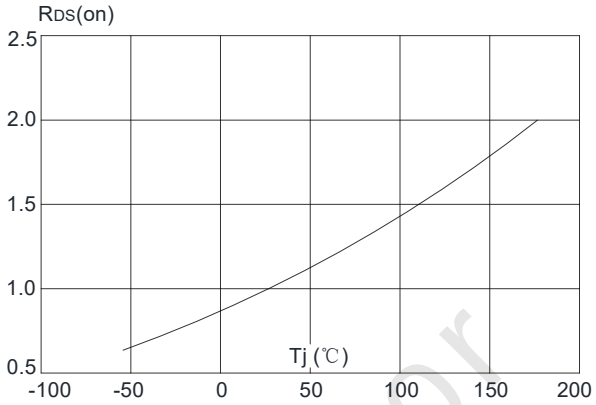


Figure 8: Normalized on Resistance vs. Junction Temperature

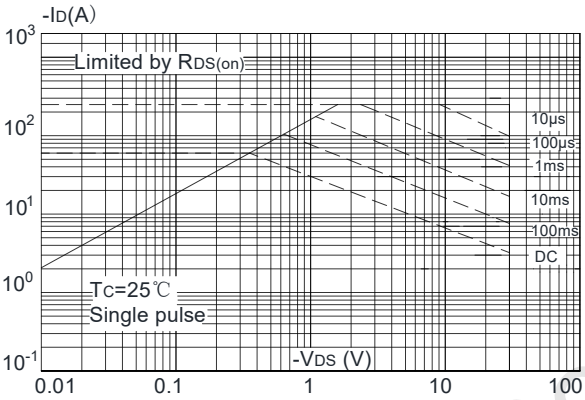


Figure 9: Maximum Safe Operating Area

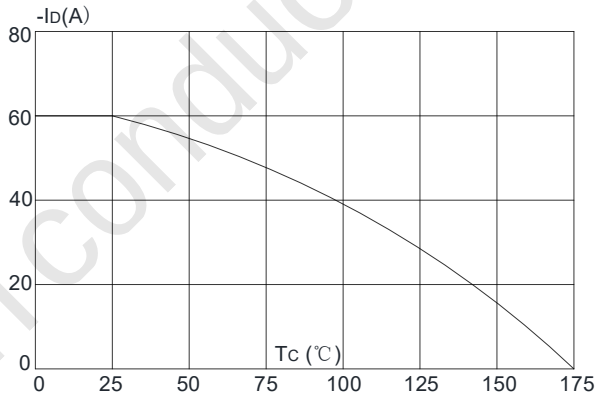


Figure 10: Maximum Continuous Drain Current vs. Case Temperature

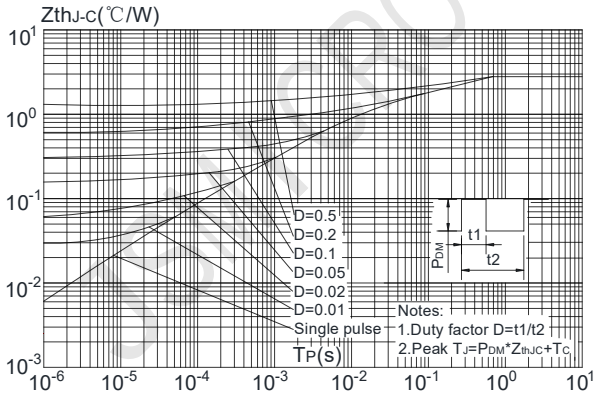
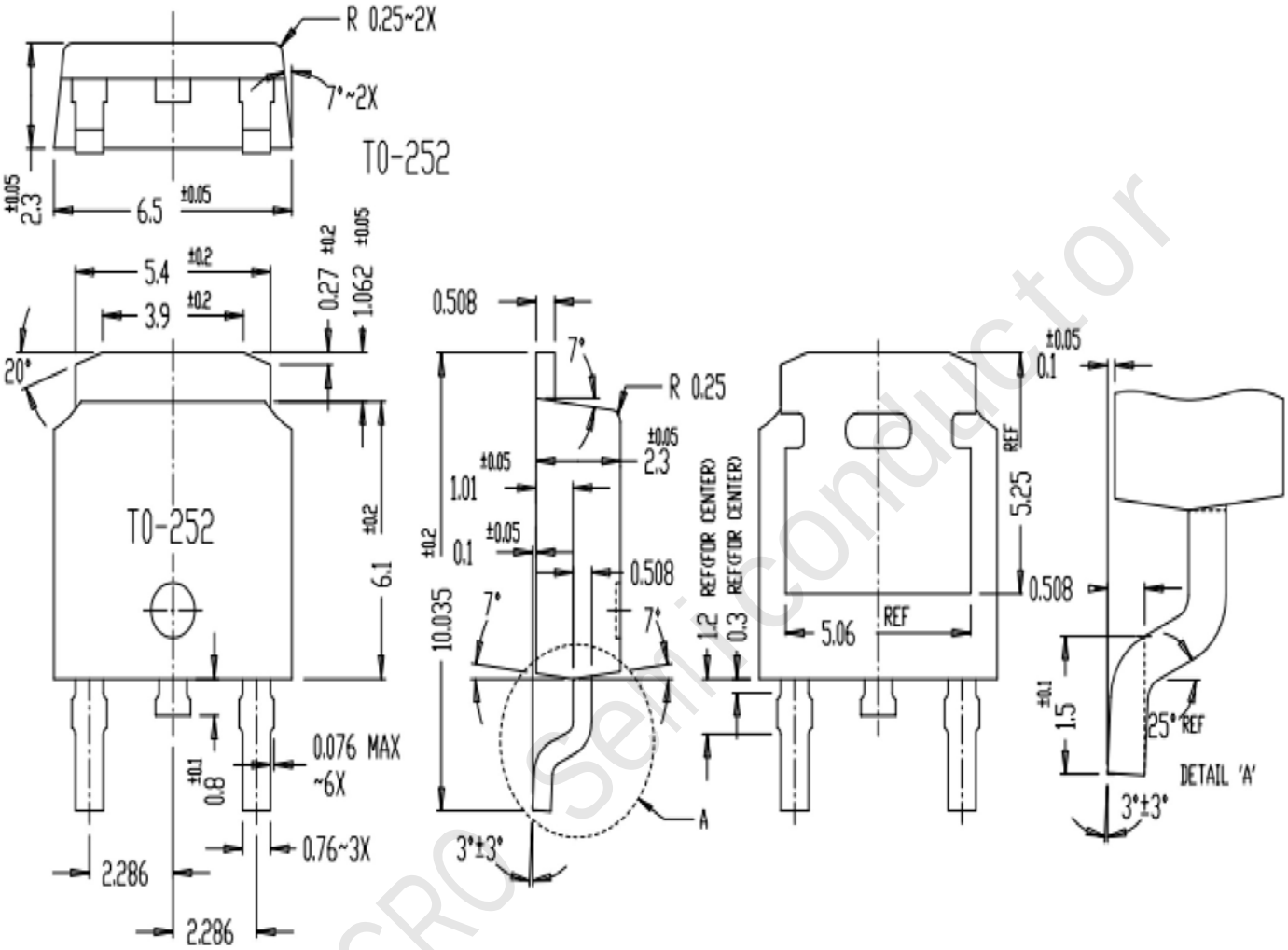


Figure.11: Maximum Effective Transient Thermal Impedance, Junction-to-Case

外形尺寸图 / Package Dimensions



单击下面可查看定价，库存，交付和生命周期等信息

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