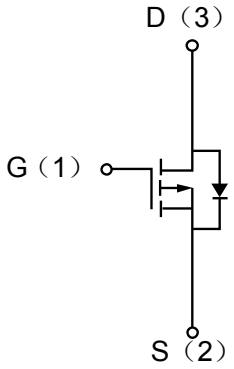
Description

The enhancement mode MOS is extremely high density cell and low on-resistance.

MOSFET Product Summary		
V_{DS}(V)	$R_{DS(on)}$(Ω)	I_D(mA)
-50	10 @ V_{GS}=-10V	-130



Absolute maximum rating@25℃

Rating	Symbol	Value	Units
Drain-Source Voltage	V_{DS}	-50	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	-130	mA
Pulsed Drain Current	I_{DM}	-520	mA
Total Power Dissipation	P_{tot}	250	mW
Storage Temperature Range	T_{STG}	-65 to +150	℃
Operating Junction Temperature	T_J	150	℃

Thermal resistance

Parameter	Symbol	Value	Units
Thermal Resistance, Junction-to-Ambient	$R_{th\ j\text{-}a}$	500	K/W

Electrical characteristics per line@25℃(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Drain-Source Breakdown Voltage	BV_{DSS}	I_D =-10μA,V_{GS}=0V	-50		-	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} =-50V,V_{GS}=0V	-	-	-10	μA
Gate-to-Source Forward Leakage	I_{GSS}	V_{GS}=±20V	-	-	±10	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =-1mA	-0.8		-2	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-10V, I_D =-130mA			10	Ω
Forward Transfer Admittance	$\|y_{fs}\|$	V_{DS}=-25V, I_D =-130mA	50	-	-	mS
Input Capacitance	C_{ISS}	V_{GS}=0V, V_{DS} =-25V, f=1MHz	-	25	45	pF
Output Capacitance	C_{DSS}		-	15	25	pF
Reverse Transfer Capacitance	C_{RSS}		-	3.5	12	pF
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=-40V,V_{GS}=-10V , I_D=-200mA	-	3	-	ns
Turn-Off Delay Time	$t_{d(off)}$		-	7	-	

Typical Characteristics

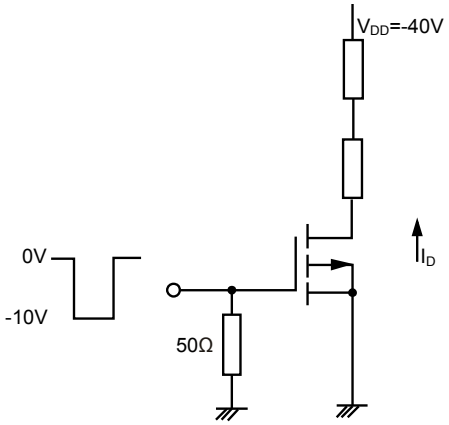


Figure 1. Switching Time Test Circuit

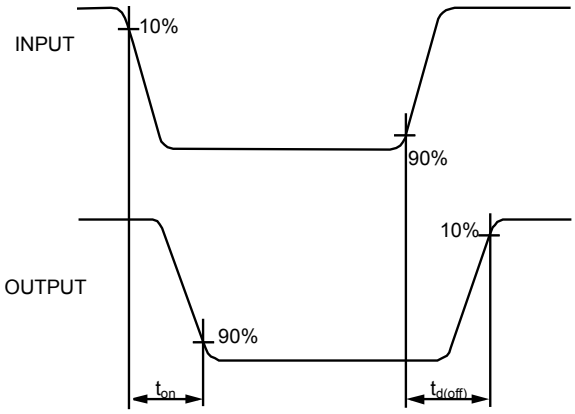


Figure 2. Input and Output Waveforms

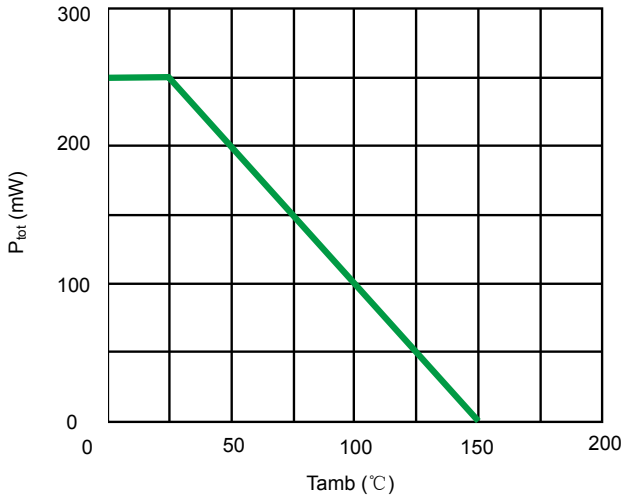


Fig 3. Power Derating Curve

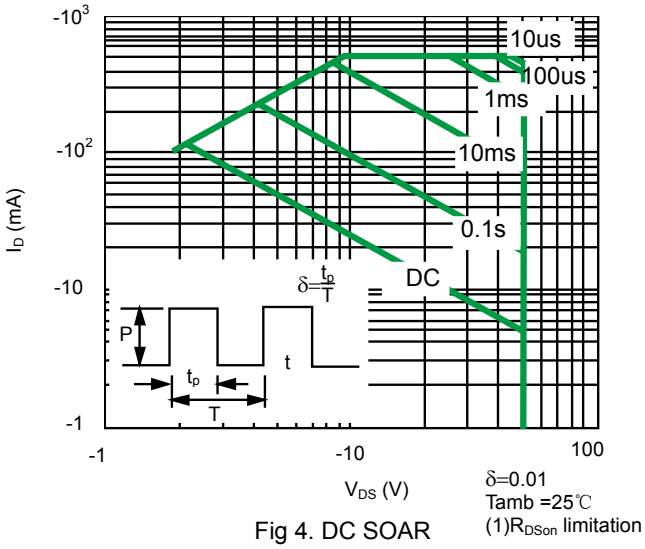


Fig 4. DC SOAR

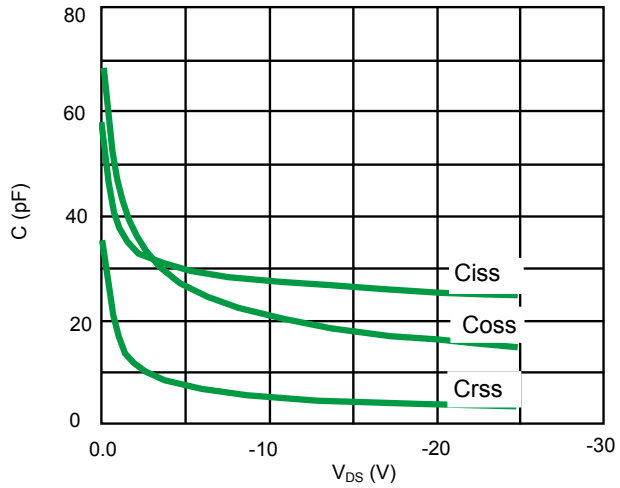


Fig 5. Capacitance

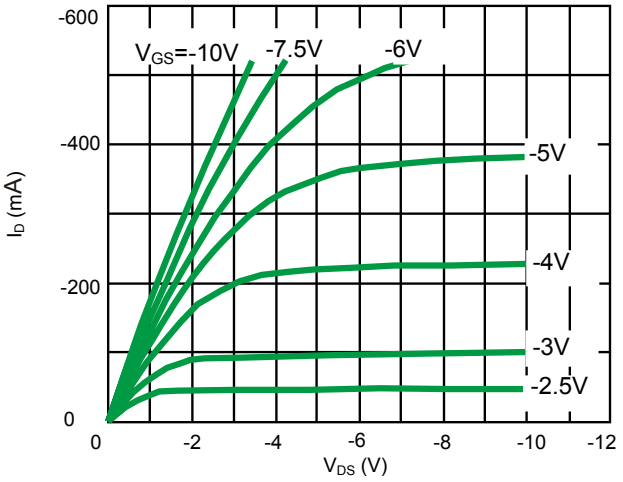


Fig 6.Typical Output Characteristics

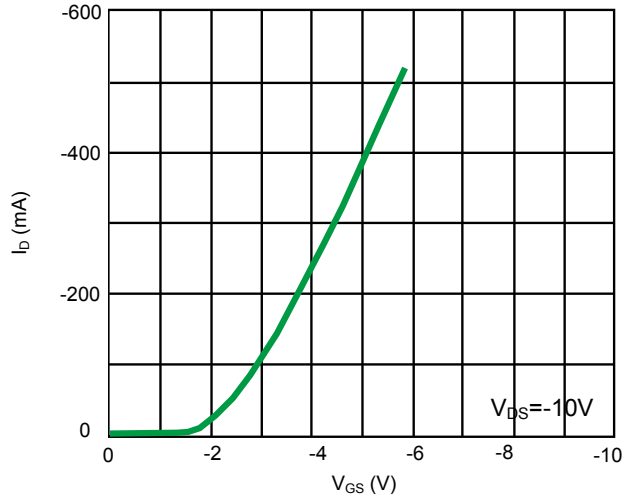


Fig 7. Typical Transfer Characteristics

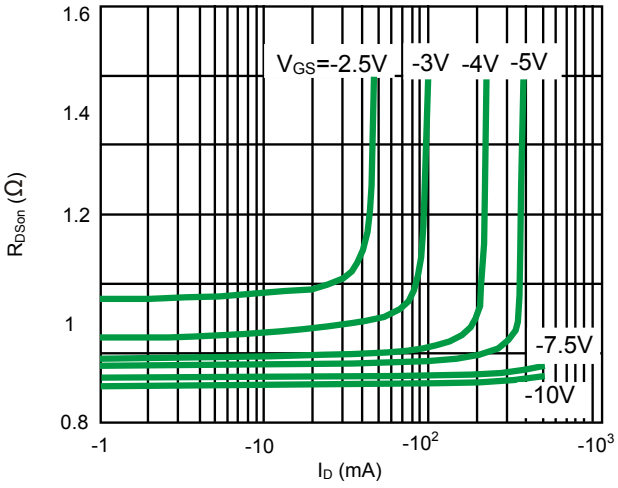


Fig 8. Drain-Source On-State Resistance as a Function of Drain Current; Typical Values

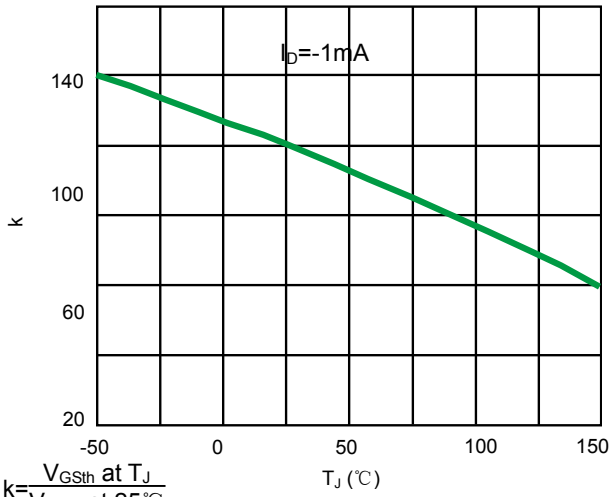


Fig 9. Temperature Coefficient of Gate-Source Threshold Voltage

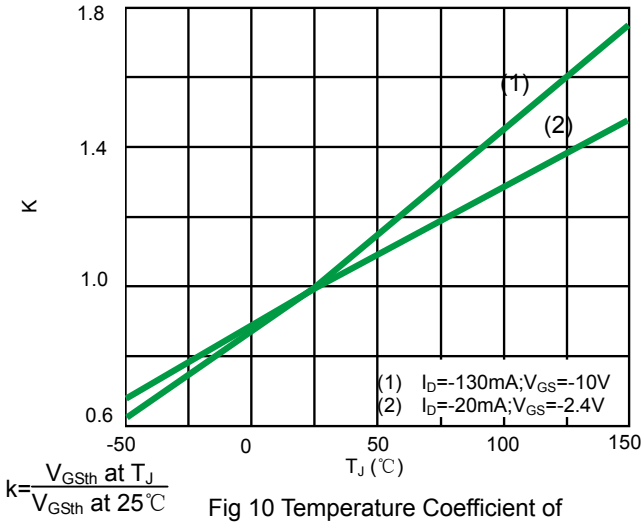


Fig 10 Temperature Coefficient of Drain-Source On-State Resistance

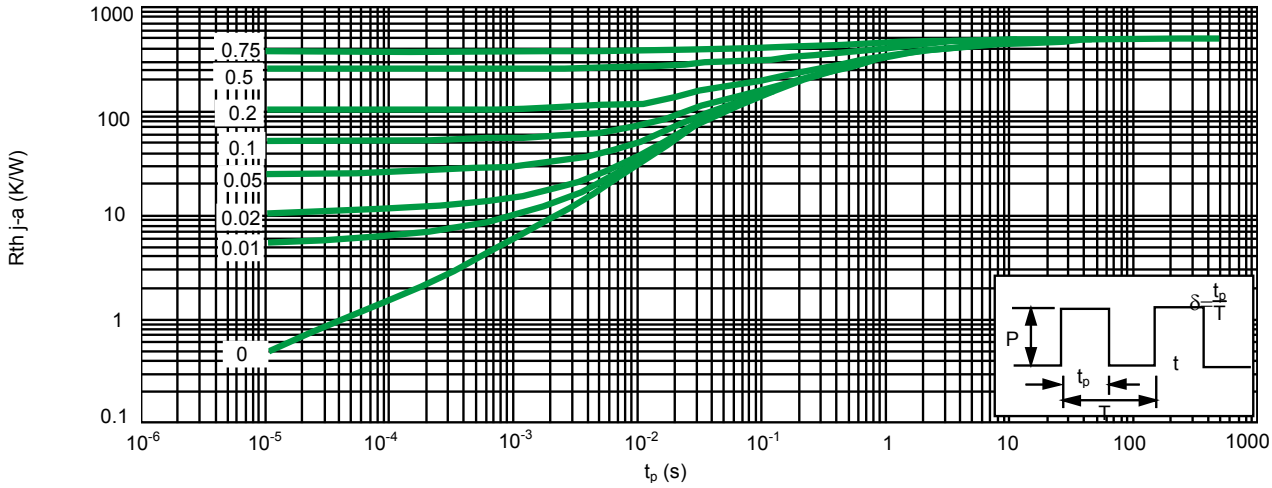
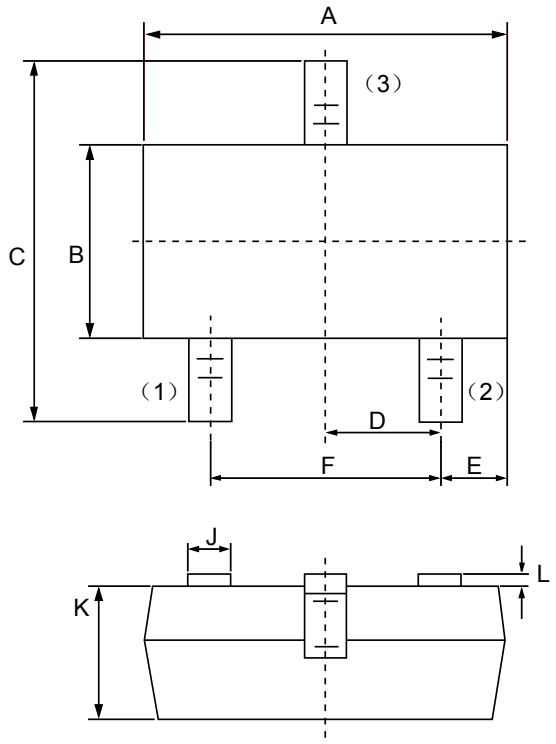
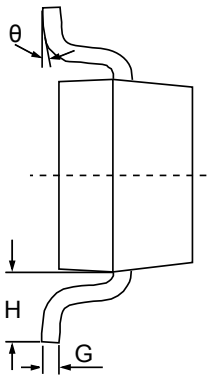


Fig 11.Thermal Resistance From Junction to Ambient as a Function of Pulse Time; Typical Values

Product dimension(SOT-23)





Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	2.80	3.00	0.1102	0.1197
B	1.20	1.40	0.0472	0.0551
C	2.10	2.50	0.0830	0.0984
D	0.89	1.02	0.0350	0.0401
E	0.45	0.60	0.0177	0.0236
F	1.78	2.04	0.0701	0.0807
G	0.085	0.177	0.0034	0.0070
H	0.45	0.60	0.0180	0.0236
J	0.37	0.50	0.0150	0.0200
K	0.89	1.11	0.0350	0.0440
L	0.013	0.100	0.0005	0.0040
θ	0°	10°	0°	10°

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