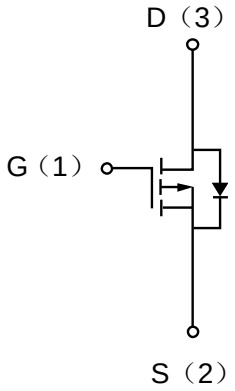
Description

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(A)
-30	0.053 @ V_{GS}=-10V	-4.2
	0.065@ V_{GS}=-4.5V	



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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV_{DSS}	I_D=-250μA,V_{GS}=0V	-30	-	-	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-24V,V_{GS}=0V	-	-	-1	μA
Gate-Body Leakage Current	I_{GSS}	V_{DS}=0V,V_{GS}=±12V	-	-	±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=-250μA	-0.7		-1.3	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-10V, I_D=-4.2A	-	53	60	mΩ
		V_{GS}=-4.5V, I_D=-4A	-	65	75	mΩ
		V_{GS}=-2.5V, I_D=-2A		86	120	mΩ
Forward Trans conductance	gFS	V_{GS}=-5V, I_D=-5A, T_A=125℃	7	11		S
DYNAMIC PARAMETERS						
Input Capacitance	C_{ISS}	V_{GS}=0V, V_{DS}=-15V, f=1MHz	-	950		pF
Output Capacitance	C_{DSS}		-	110		pF
Reverse Transfer Capacitance	C_{RSS}		-	75		pF
SWITCHING PARAMETERS						
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=-15V, V_{GS}=-10V, R_L=3.6Ω, R_G=6Ω	-		20	ns
Turn-Off Delay Time	$t_{d(off)}$		-		35	ns

Absolute maximum rating@25℃

Parameter	Symbol	Value	Units
Thermal Resistance, Junction-to-Ambient (Note 2)	$R_{\theta JA}$	104	℃/W

Absolute maximum rating@25℃

Rating		Symbol	Value	Units
Drain-Source Voltage		V_{DS}	-30	V
Gate-Source Voltage		V_{GS}	±12	V
Drain Current	Continuous	I_D	-4.2	A
	Pulsed	I_D	-30	A
Maximum Power Dissipation		P_D	1.2	W
Operating Junction and Storage Temperature Range		T_J,T_{STG}	-55 To 150	℃

Typical Characteristics

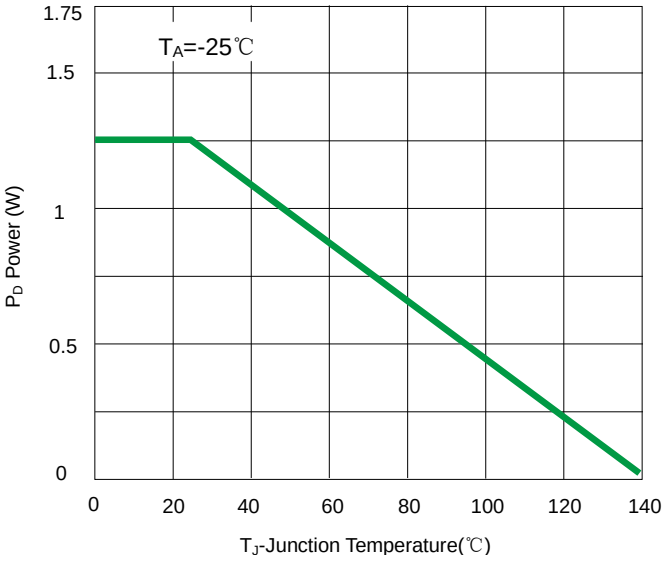


Fig 1. Power Dissipation

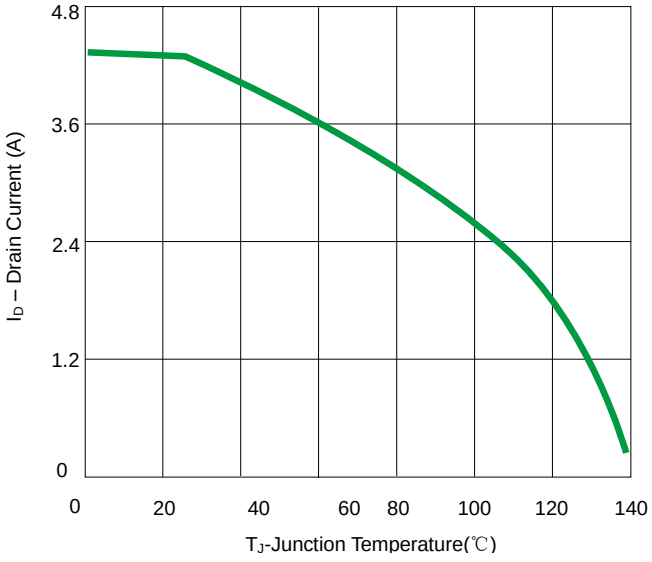


Fig 2. Drain Current

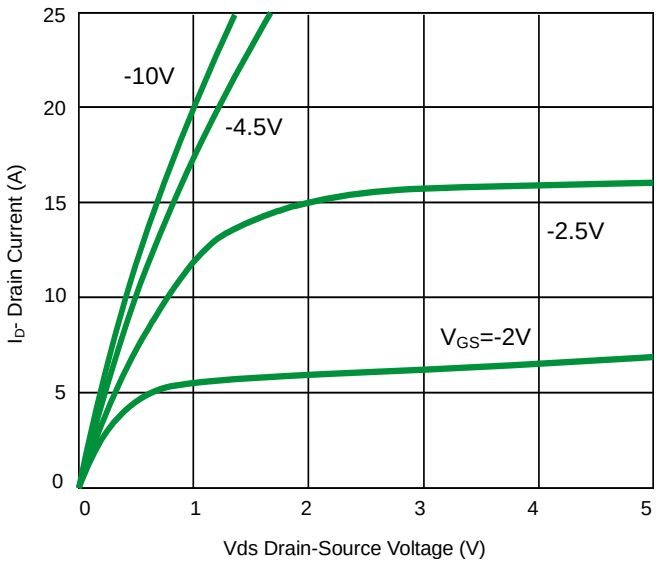


Fig 3. Output Characteristics

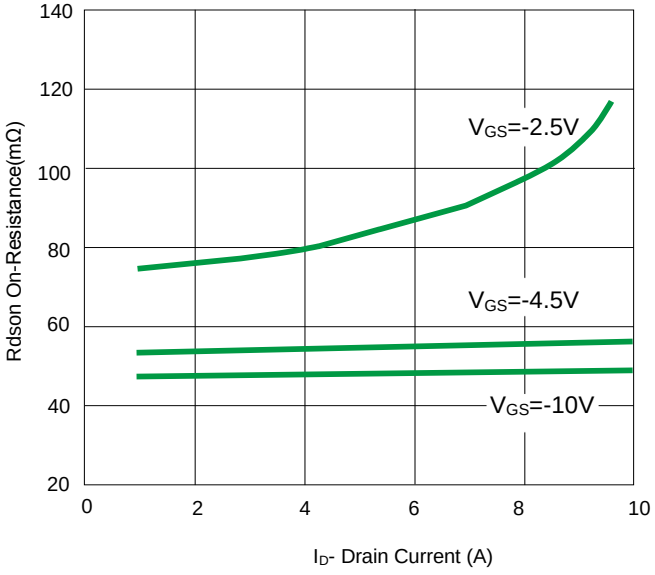


Fig 4. Drain-Source On-Resistance

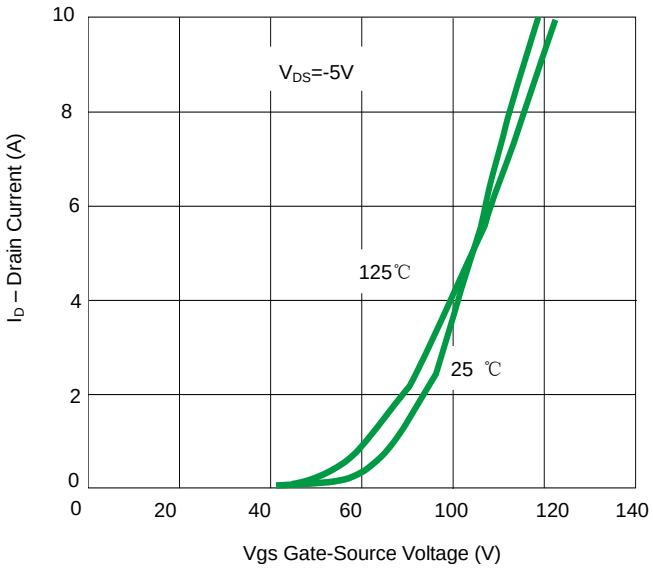


Fig 5.Transfer Characteristics

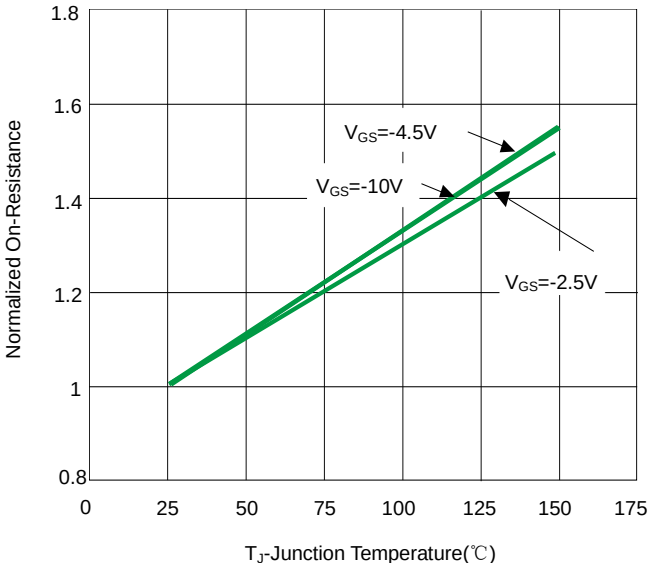


Fig 6. Transfer Characteristics

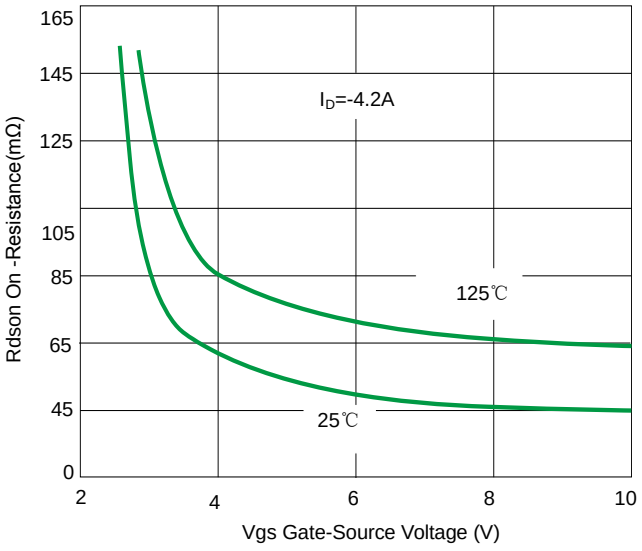


Fig. 7 Rdson vs Vgs

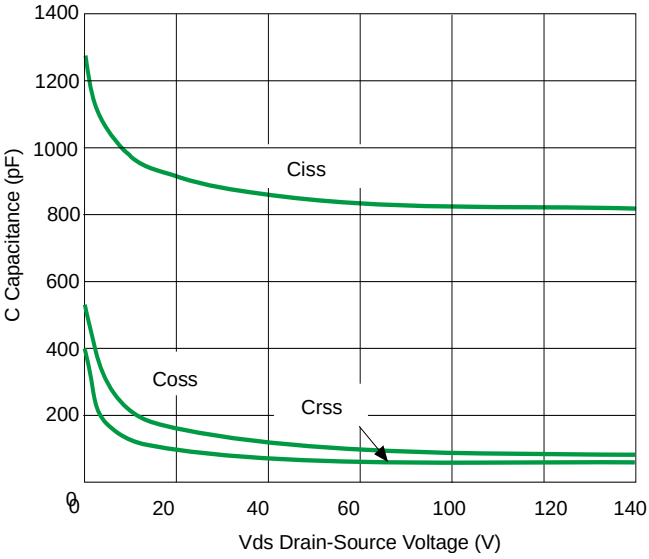


Fig.8 Capacitance vs Vds

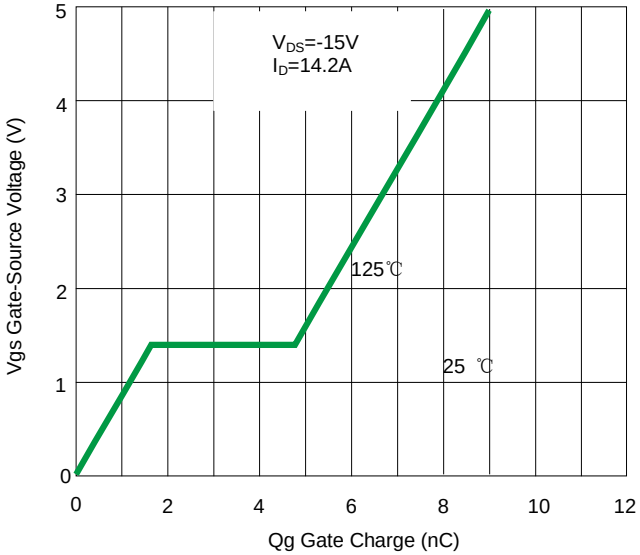


Fig. 9 Gate Charge

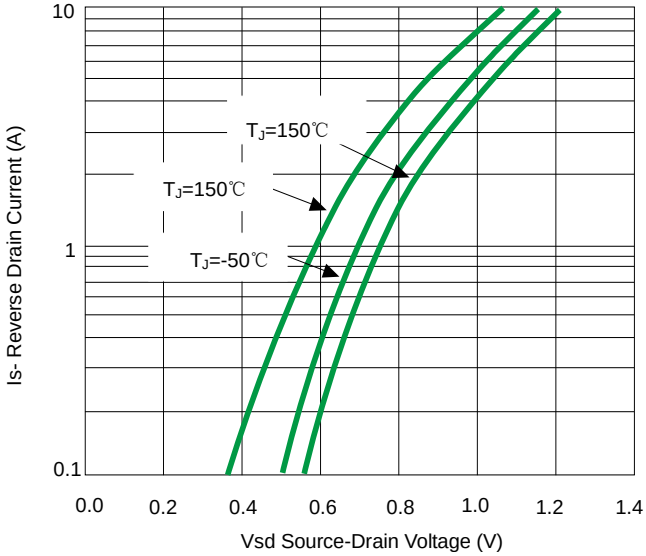


Fig.10 Source- Drain Diode Forward

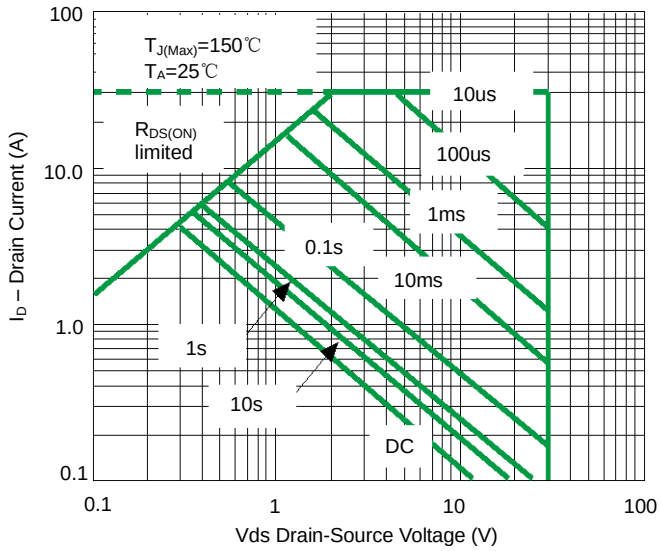


Fig. 11 Safe Operation Area

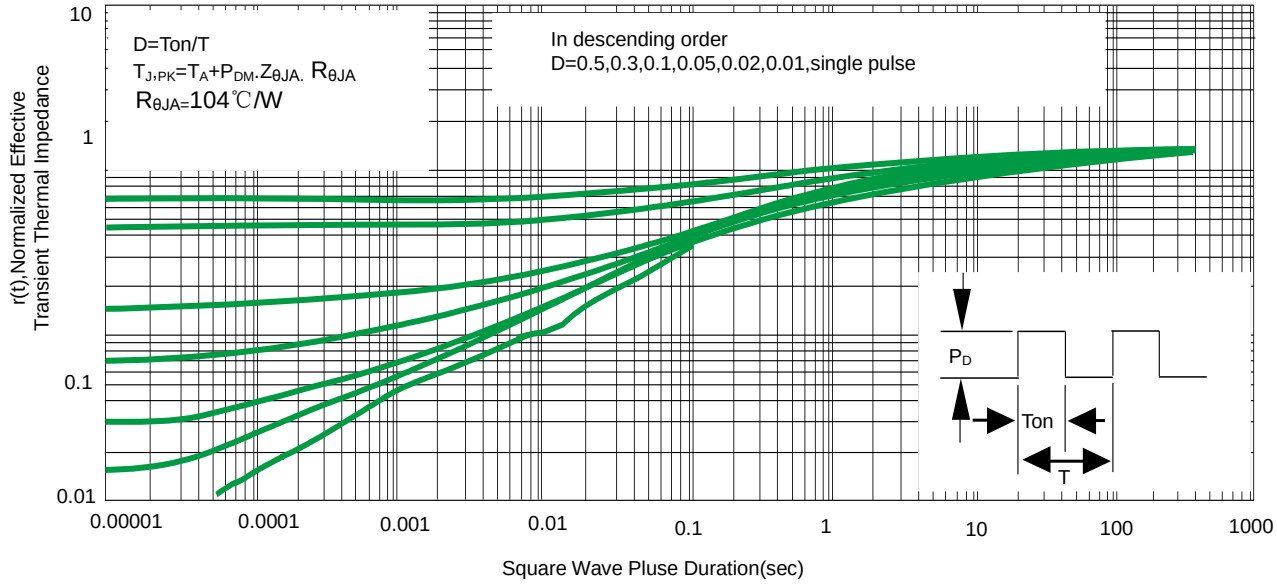
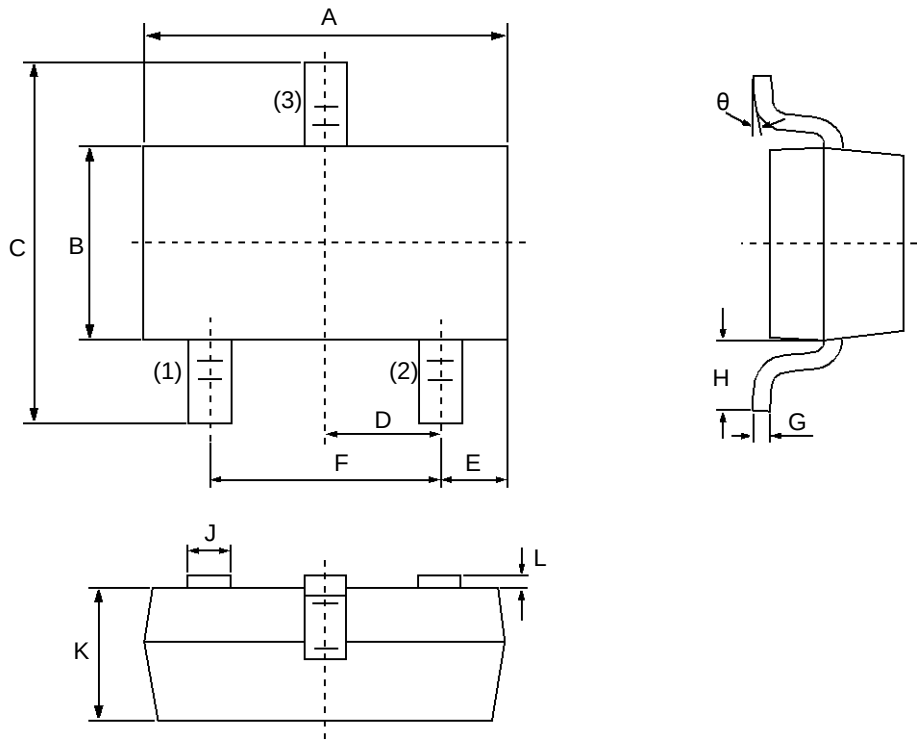


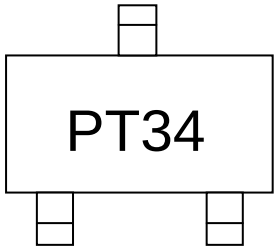
Fig.12 Normalized Maximum Transient Thermal Impedance

Product dimension(SOT-23)



Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	2.80	3.04	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°

Marking information



Ordering information

Device	Package	Reel	Shipping
PPMT30V4	SOT-23 (Pb-Free)	7"	3000 / Tape & Reel

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