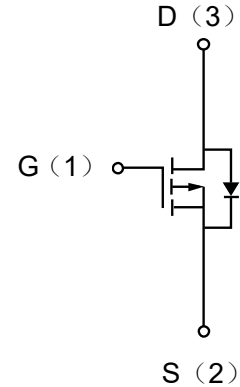


Description

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

MOSFET Product Summary		
V _{DS} (V)	R _{DS(on)} (mΩ)	I _D (A)
-30	43 @ V _{GS} =-10V	-4.2
	53 @ V _{GS} =-4.5V	


Electrical characteristics per line@25°C (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	-	43	55	mΩ
		V _{GS} = -4.5V, I _D = -4A	-	53	65	mΩ
		V _{GS} = -2.5V, I _D = -2A		79	90	mΩ
Forward Trans conductance	g _{FS}	V _{GS} = -5V, I _D = -5A, T _A = 125°C	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°C

Parameter	Symbol	Value	Units
Thermal Resistance, Junction-to-Ambient (Note 2)	R _{θJA}	104	°C/W

Absolute maximum rating@25°C

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	°C

Typical Characteristics

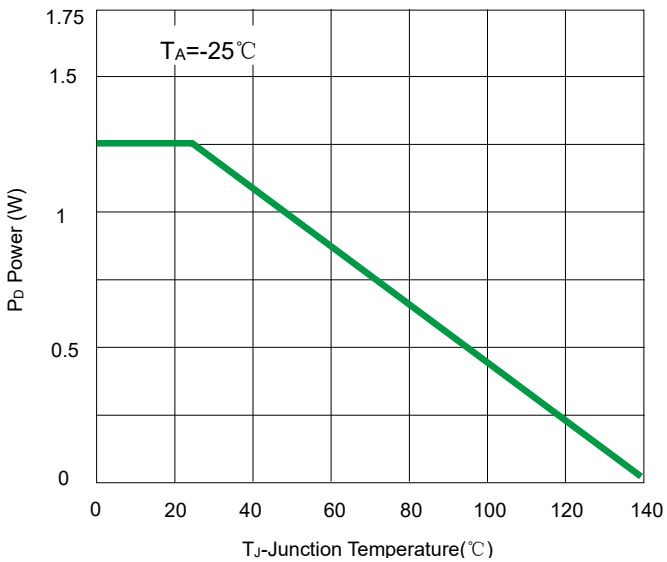


Fig 1. Power Dissipation

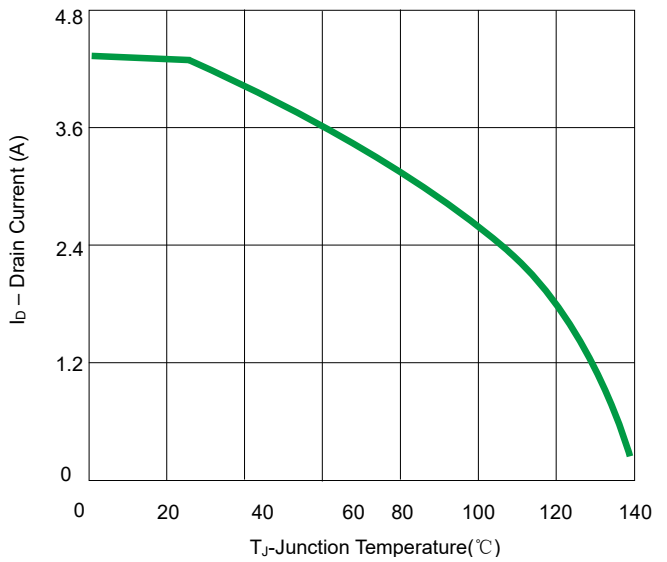


Fig 2. Drain Current

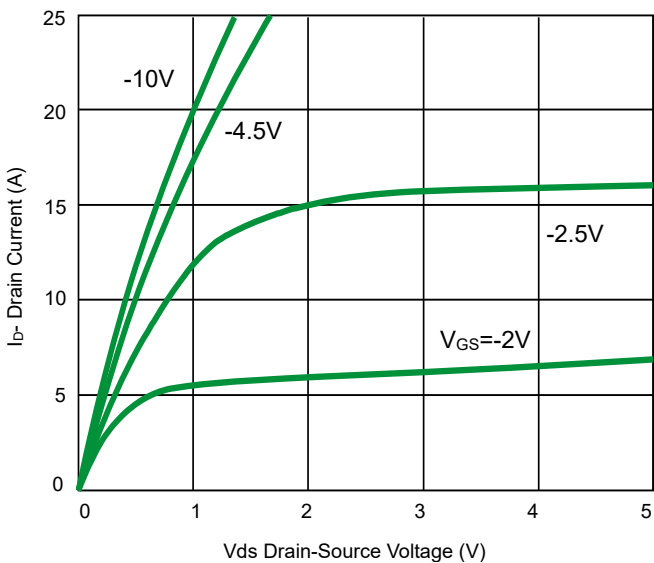


Fig 3. Output Characteristics

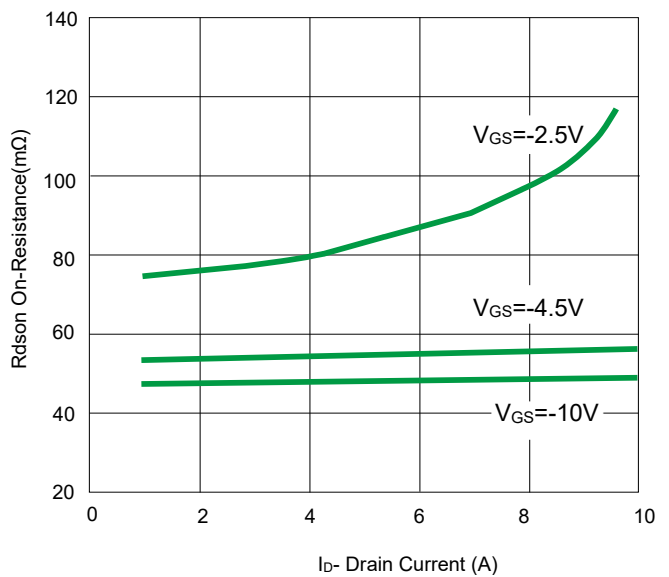


Fig 4. Drain-Source On-Resistance

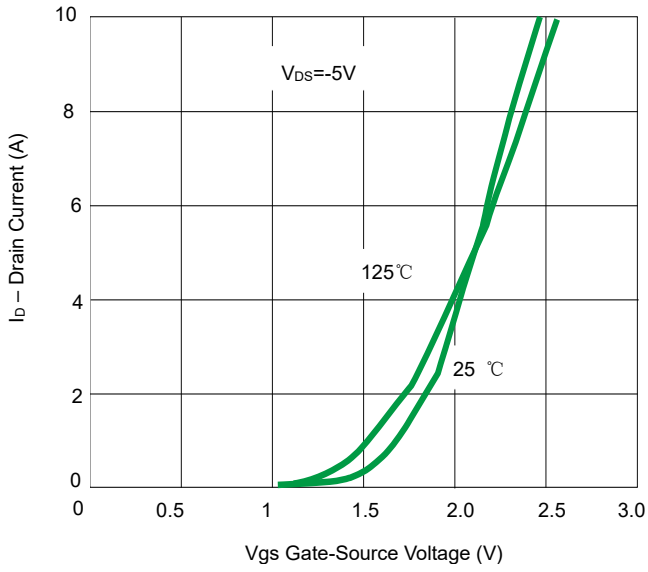


Fig 5. Transfer Characteristics

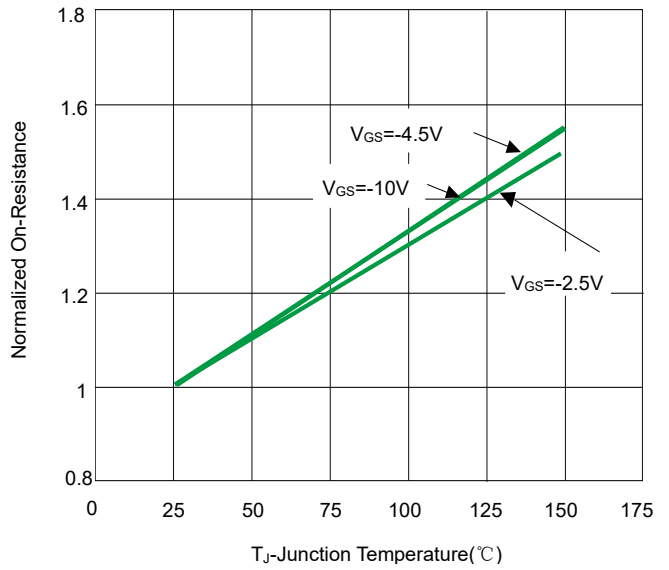


Fig 6. Transfer Characteristics

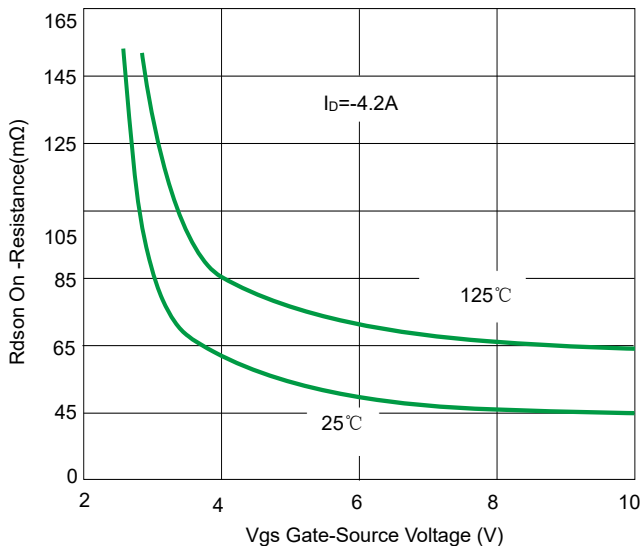


Fig. 7 R_{DSON} vs V_{GS}

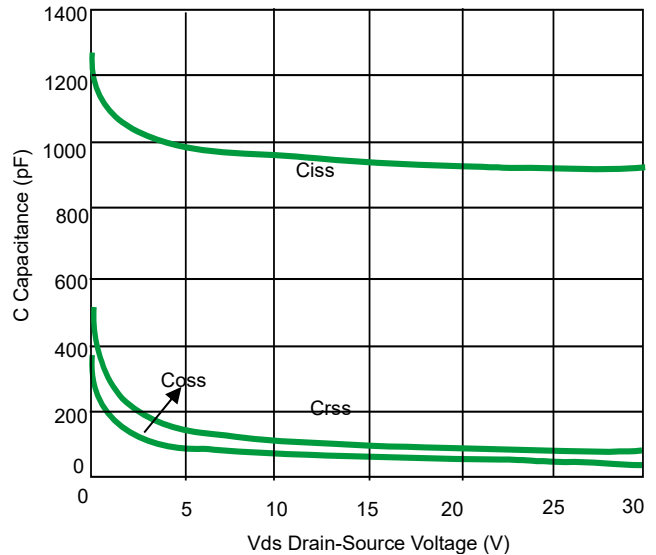


Fig.8 Capacitance vs V_{DS}

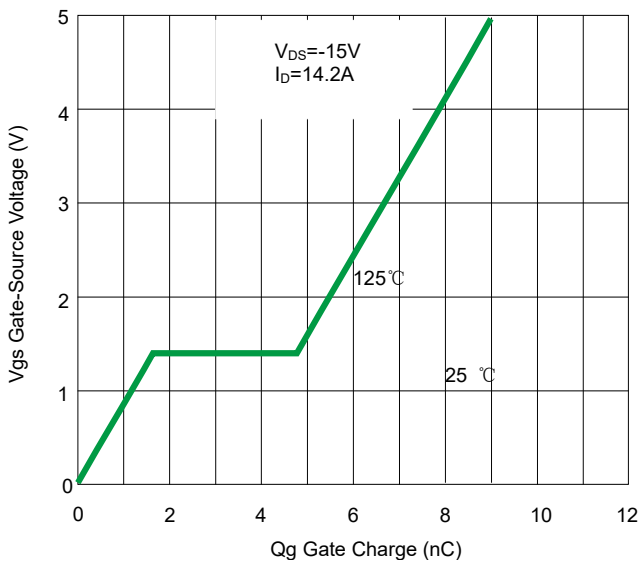


Fig. 9 Gate Charge

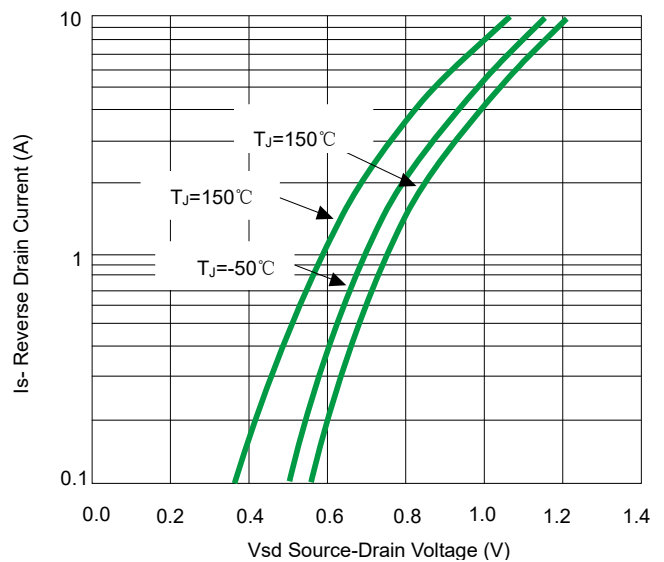


Fig.10 Source- Drain Diode Forward

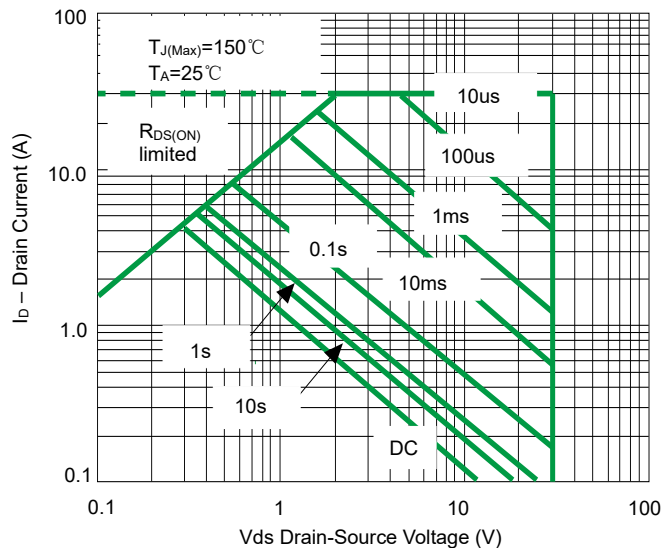


Fig. 11 Safe Operation Area

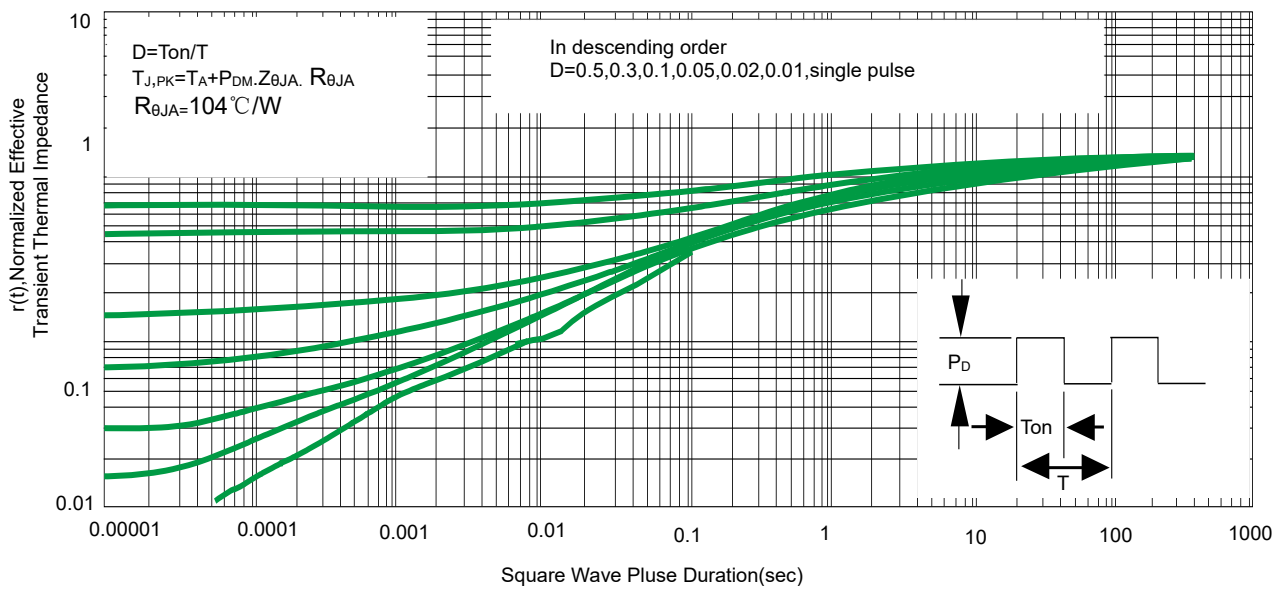
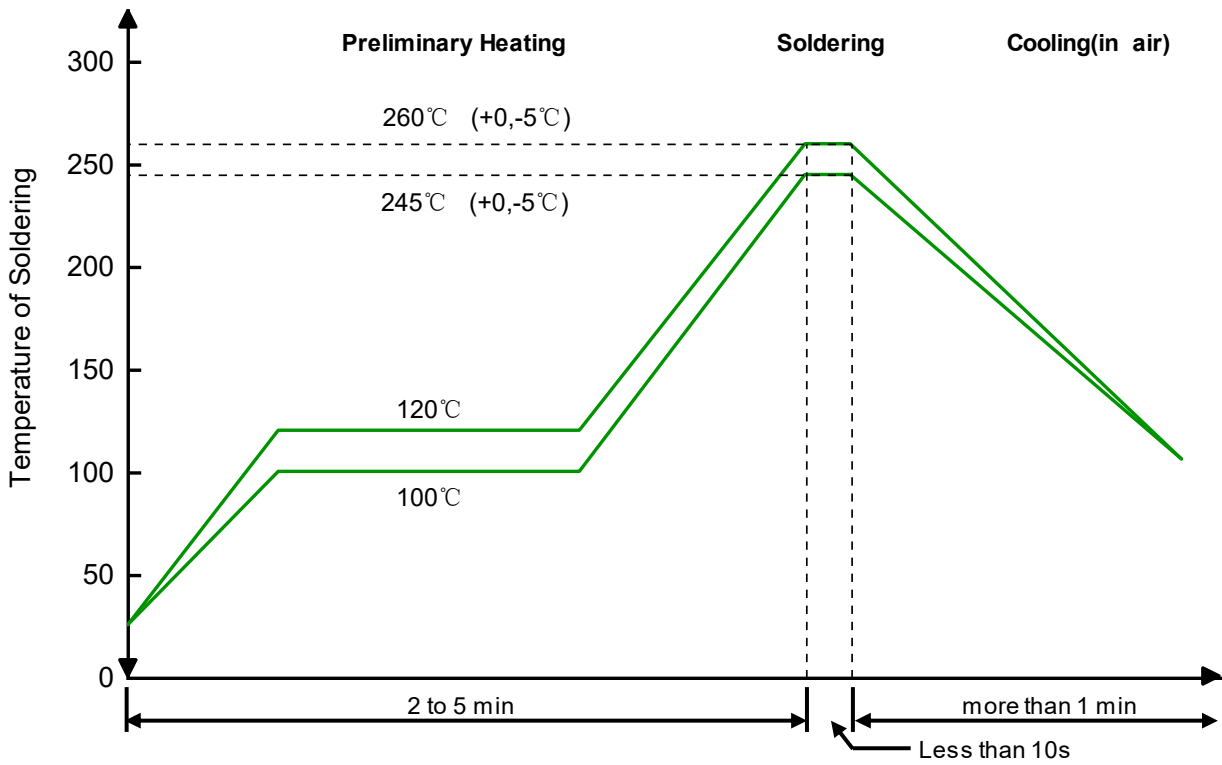


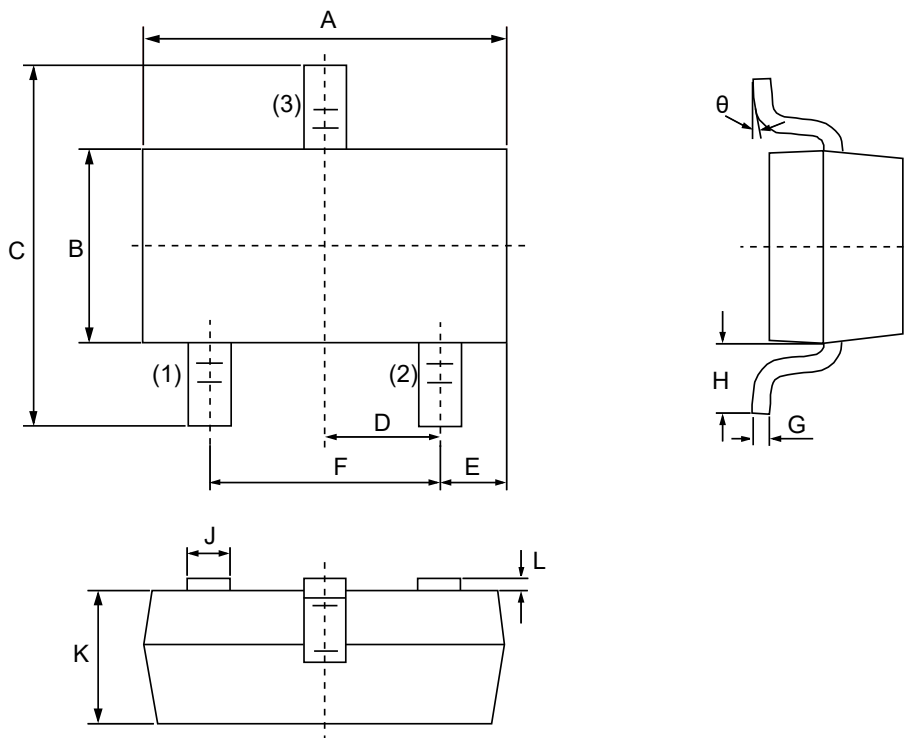
Fig.12 Normalized Maximum Transient Thermal Impedance

Solder Reflow Recommendation



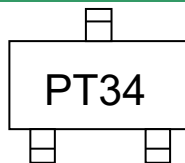
Remark: Pb free for 260°C; Pb for 245°C.

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°

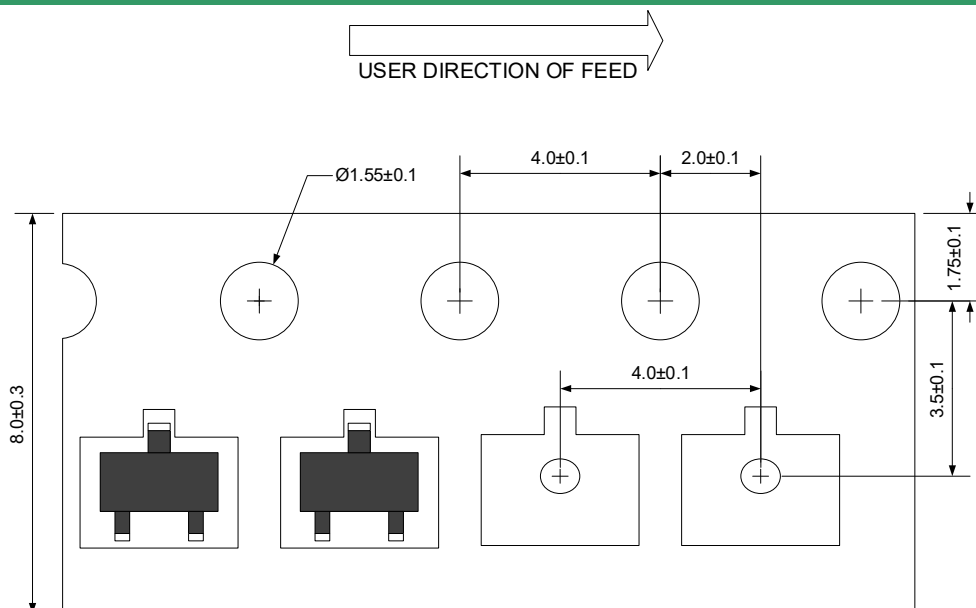
Marking information



Ordering information


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

Load with information



Unit:mm


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