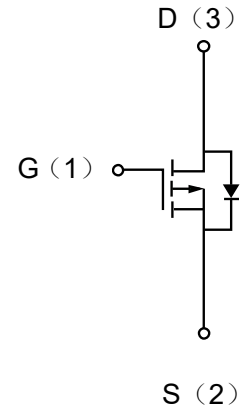
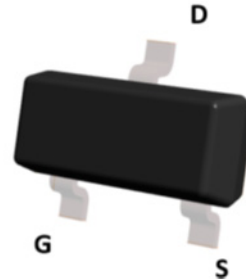


**Description**

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

MOSFET Product Summary		
V <sub>DS</sub> (V)	R <sub>DS(on)</sub> ( $\Omega$ )	I <sub>D</sub> (A)
-20	0.095 @ V <sub>GS</sub> =-4.5V	-2.8
	0.12 @ V <sub>GS</sub> =-2.5V	


**Electrical characteristics per line@25°C ( unless otherwise specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
<b>OFF CHARACTERISTICS</b>						
Drain-Source Breakdown Voltage	BV <sub>DSS</sub>	I <sub>D</sub> = -250 $\mu$ A, V <sub>GS</sub> = 0V	-20	-	-	V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = -16V, V <sub>GS</sub> = 0V	-	-	-1	$\mu$ A
Gate-Body Leakage Current	I <sub>GSS</sub>	V <sub>DS</sub> = 0V, V <sub>GS</sub> = $\pm$ 8V	-	-	$\pm$ 100	nA
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = -250 $\mu$ A	-0.45		-0.9	V
Static Drain-Source On-Resistance <sup>2</sup>	R <sub>DS(ON)</sub>	V <sub>GS</sub> = -4.5V, I <sub>D</sub> = -2.8A	-	0.11	0.14	$\Omega$
		V <sub>GS</sub> = -2.5V, I <sub>D</sub> = -2.0A	-	0.15	0.18	$\Omega$
		V <sub>GS</sub> = -1.8V, I <sub>D</sub> = -1.0A	-	0.20	0.30	$\Omega$
Forward Tran conductance	g <sub>FS</sub>	V <sub>GS</sub> = 5V, I <sub>D</sub> = 50mA, T <sub>A</sub> = 125°C		6.5		S
<b>DYNAMIC PARAMETERS</b>						
Input Capacitance	C <sub>ISS</sub>	V <sub>GS</sub> = 0V, V <sub>DS</sub> = 10V, f = 1MHz	-	460		pF
Output Capacitance	C <sub>DSS</sub>		-	155		pF
Reverse Transfer Capacitance	C <sub>RSS</sub>		-	50		pF
<b>SWITCHING PARAMETERS</b>						
Turn-On Delay Time	t <sub>d(on)</sub>	V <sub>DD</sub> = -6V, V <sub>GS</sub> = -4.5V, R <sub>L</sub> = 6 $\Omega$ , R <sub>G</sub> = 6 $\Omega$ , I <sub>D</sub> = -1A	-		12	ns
Turn-Off Delay Time	t <sub>d(off)</sub>		-		35	ns

Absolute maximum rating@25°C

Rating		Symbol	Value	Units
Drain-Source Voltage		$V_{DS}$	-20	V
Gate-Source Voltage		$V_{GS}$	$\pm 8$	V
Drain Current	Continuous	$I_D$	-2.8	A
	Pulsed	$I_D$	-4	A
Total Power Dissipation	$T_A=25^\circ\text{C}$	$P_D$	350	mW
	$T_A=125^\circ\text{C}$	$P_D$	225	mW

Typical Characteristics

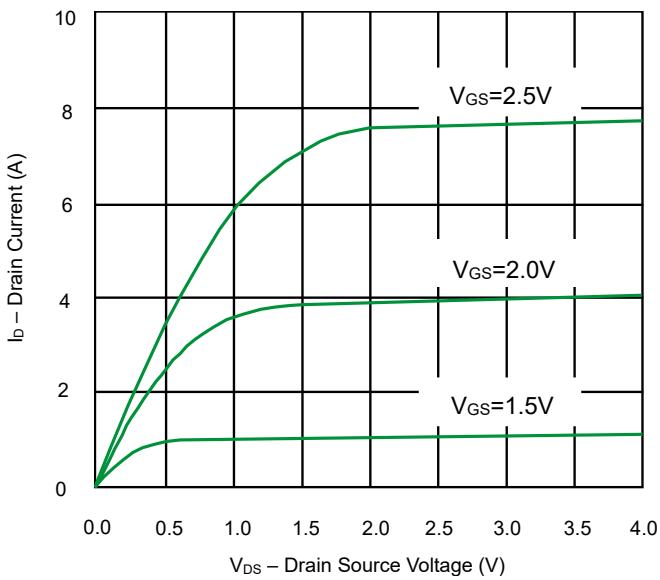


Fig 1. Output Characteristics

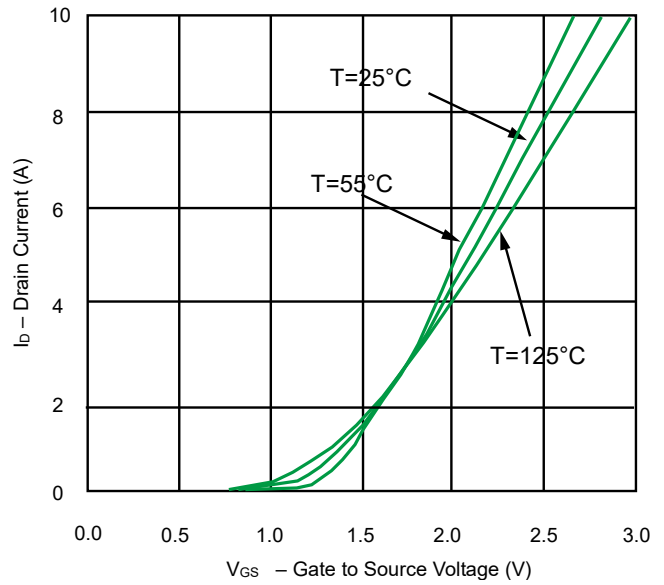


Fig 2. Transfer Characteristics

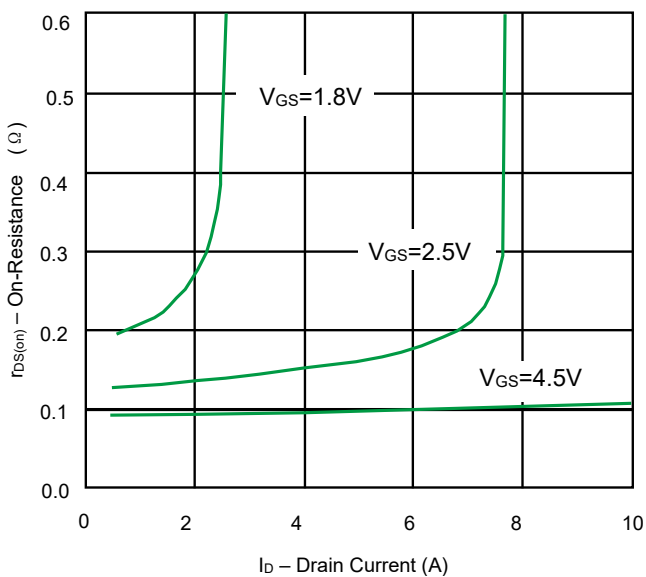


Fig 3. On-Resistance vs. Drain Current

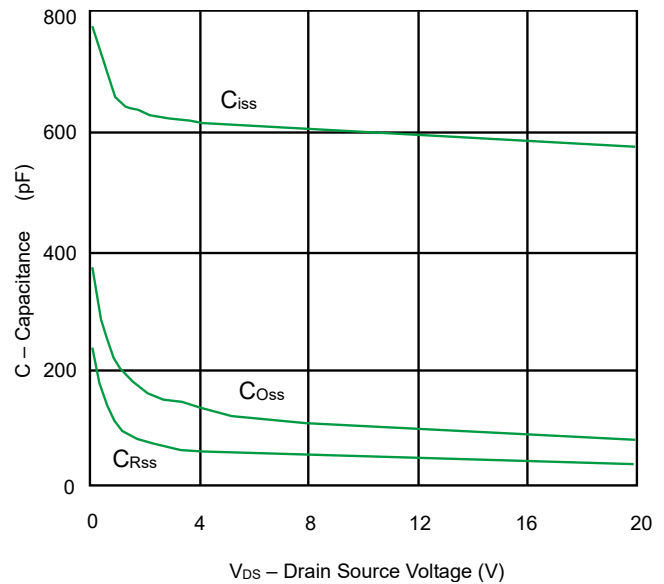
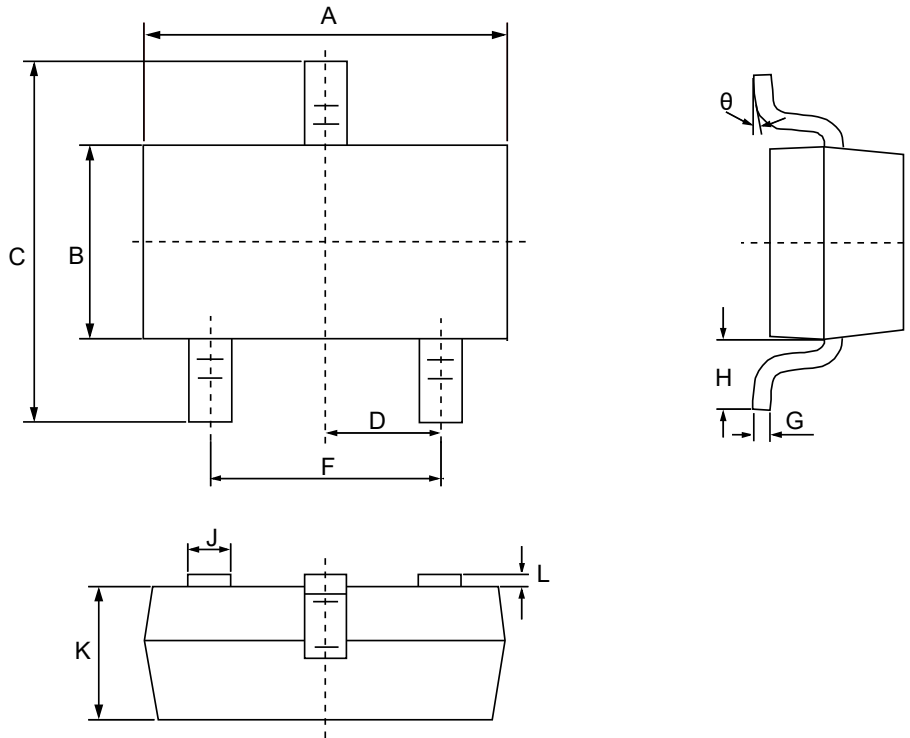
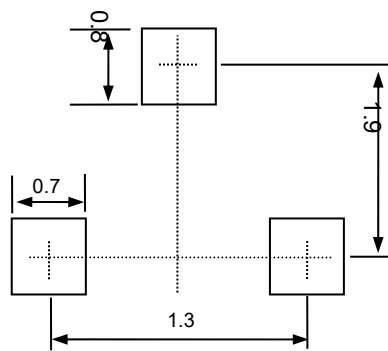


Fig 4. Capacitance

Product dimension (SOT-323)

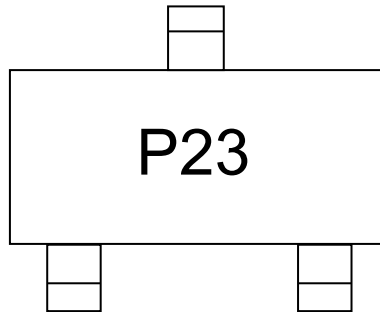


Dim	Millimeters	
	MIN	MAX
A	1.80	2.20
B	1.15	1.35
C	2.00	2.45
D	0.65BSC	
F	1.20	1.40
G	0.05	0.25
H	0.525REF	
J	0.20	0.40
K	0.80	1.10
L	0.00	0.10
θ	0°	10°



Suggested PCB Layout

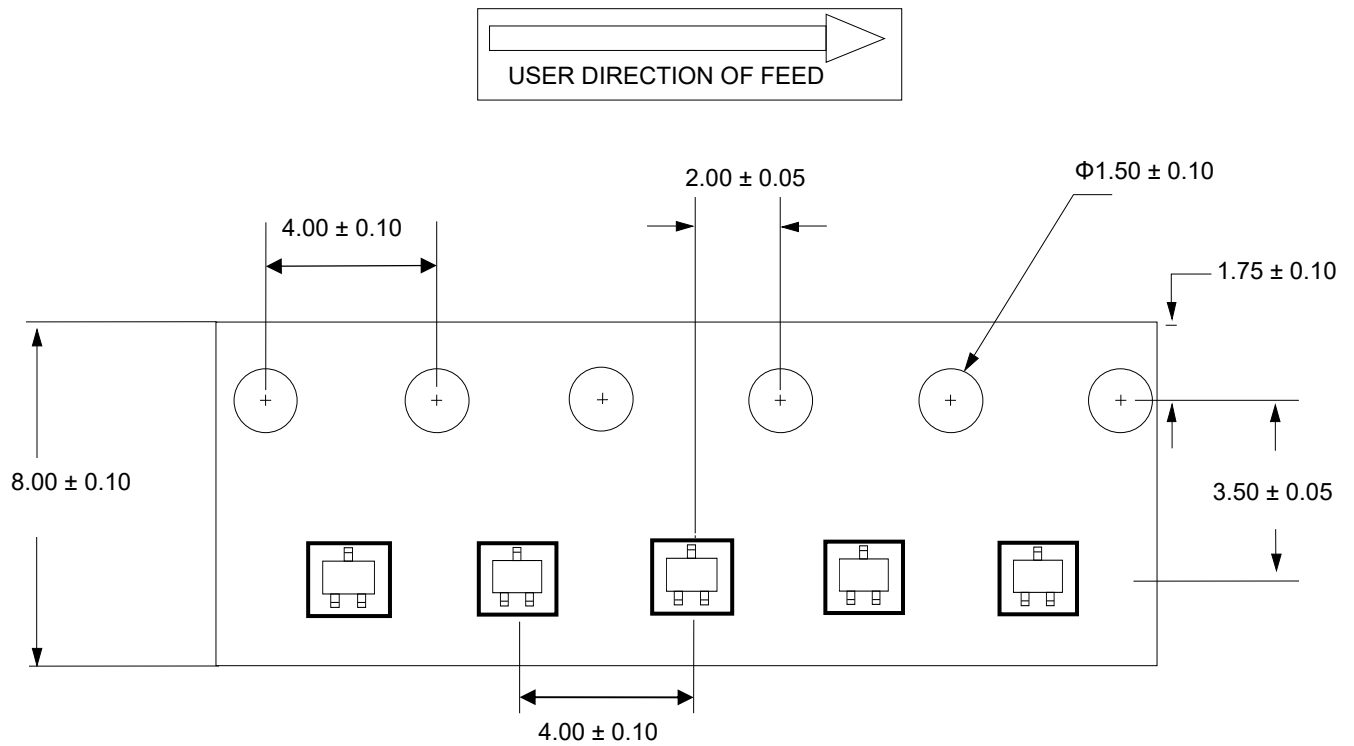
Marking information




Ordering information

Device	Package	Reel	MPQ
PPMUT20V3	SOT-323 (Pb-Free)	7"	3000 / Tape & Reel

Load with information




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