

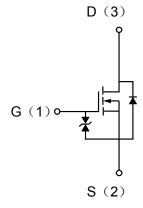
# N-Channel MOSFET

### Description

PNMT60V02E is designed for high speed switching applications

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

MOSFET Product Summary				
V <sub>DS</sub> (V)	$R_{DS(on)}(\Omega)$	$V_{GS(th)}(V)$	I <sub>D</sub> (A)	
60	7.5@ V <sub>GS</sub> =10V	1.0 to 1.5	0.18	



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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units	
OFF CHARACTERISTICS							
Drain-Source Breakdown Voltage	V <sub>DSS</sub>	$I_D = 10 \mu A, V_{GS} = 0 V$	60	-	-	٧	
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =40V,V <sub>GS</sub> =0V	-	-	0.5	μA	
Gate-Body Leakage Current	I <sub>GSS</sub>	$V_{DS} = 0V, V_{GS} = \pm 20V$	-	-	±1	μA	
Gate Threshold Voltage	V <sub>GS(th)</sub>	$V_{DS} = V_{GS}$ , $I_D = 250 \mu A$	1.0	-	1.5	V	
Static Drain-Source On-Resistance	Б	$V_{GS}$ =5 $V$ , $I_D$ =0.05 $A$	-	-	7.5	Ω	
	R <sub>DS(ON)</sub>	$V_{GS}$ =10V, $I_D$ =0.1A	-	-	7.5	Ω	
DYNAMIC PARAMETERS							
Input Capacitance	C <sub>ISS</sub>	V 0V V 05V	-	-	40	pF	
Output Capacitance	C <sub>DSS</sub>	$V_{GS}$ =0V, $V_{DS}$ =25V, f=1MHz	-	-	20	pF	
Reverse Transfer Capacitance	C <sub>RSS</sub>	1-1141112	-	-	5	pF	
SWITCHING PARAMETERS							
Turn-On Delay Time	t <sub>d(on)</sub>	$V_{DS}$ =30V, $V_{GS}$ =10V, $R_{G}$ =25 $\Omega$ , $R_{L}$ =150 $\Omega$	-	-	20	ns	
Turn-Off Delay Time	t <sub>d(off)</sub>	$I_D = 0.2A$	-	-	20	ns	

# Absolute maximum rating@25℃

Rating		Symbol	Value	Units
Drain-Source Voltage	Drain-Source Voltage		60	V
Gate-Source Voltage		$V_{GS}$	±20	V
Drain Current	Continuous	I <sub>D</sub>	0.18	Α
	Pulsed	I <sub>D</sub>	0.36	Α
Total Power Dissipation	T <sub>A</sub> =25℃	P <sub>D</sub>	150	mW
Gate to Source ESD:HBM_C=100pF,R=1.5KΩ		V <sub>ESD(G-S)</sub>	1000	V

## **Typical Characteristics**

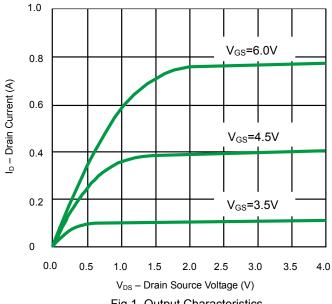
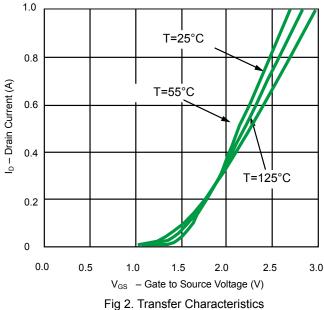
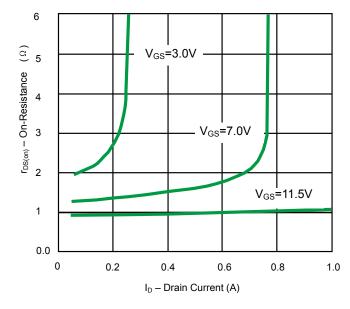
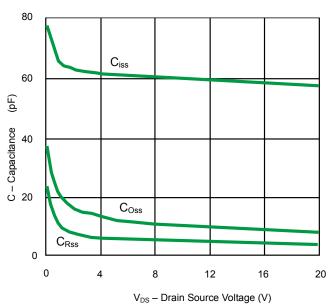


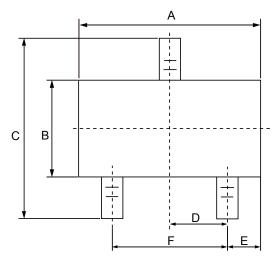
Fig 1. Output Characteristics

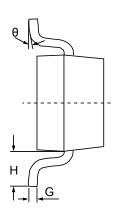


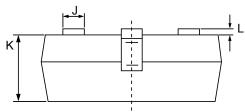




# **Product dimension(SOT-23)**







Dim	Millimeters		Inches		
	MIN	MAX	MIN	MAX	
А	2.80	3.00	0.1102	0.1197	
В	1.20	1.40	0.0472	0.0551	
С	2.10	2.50	0.0830	0.0984	
D	0.89	1.02	0.0350	0.0401	
Е	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	
Н	0.45	0.60	0.0180	0.0236	
J	0.37	0.50	0.0150	0.0200	
К	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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