

SOT-723 Plastic-Encapsulate MOSFETS

N-Channel MOSFET

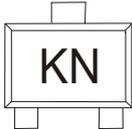
FEATURES

- Low on-resistance
- Fast switching speed
- Low voltage drive makes this device ideal for portable equipment
- Drive circuits can be simple
- Parallel use is easy

APPLICATIONS

Interfacing , Switching

MARKING:KN



Pb-Free package is available

RoHS product for packing code suffix "G"

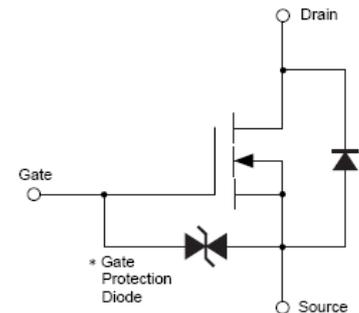
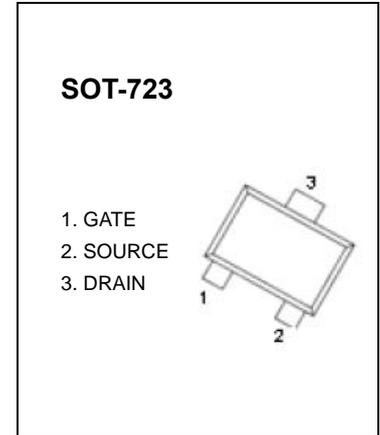
Halogen free product for packing code suffix "H"

*A protection diode is included between the gate and the source terminals to protect the diode against static electricity when the product is in use. Use a protection circuit when the fixed voltages are exceeded.

Maximum ratings (T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Drain-source voltage	V _{DS}	30	V
Gate-source voltage	V _{GS}	±20	
Continuous drain current	I _D	±100	mA
Power dissipation	P _D	0.15	W
Thermal resistance from junction to ambient	R _{θJA}	833	°C/W
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 ~+150	

* Pw≤10μs ,Duty cycles≤1%



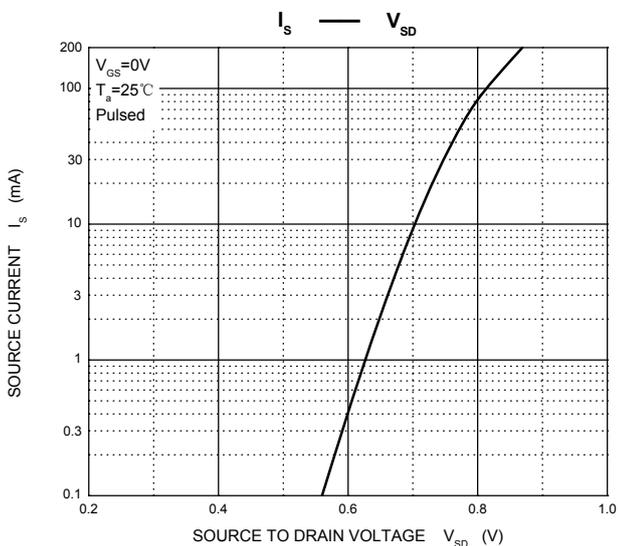
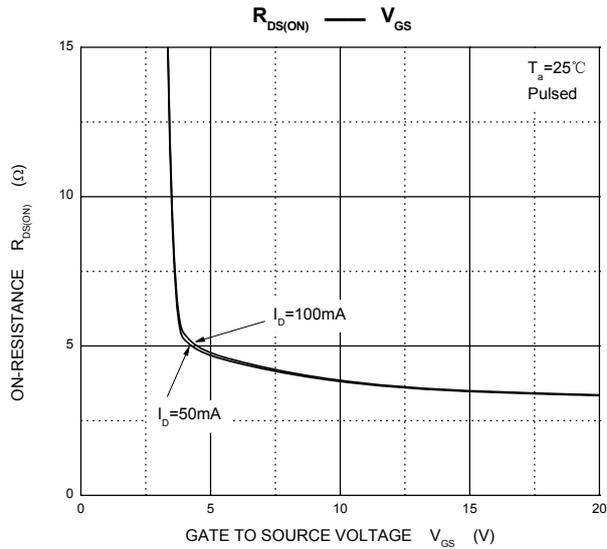
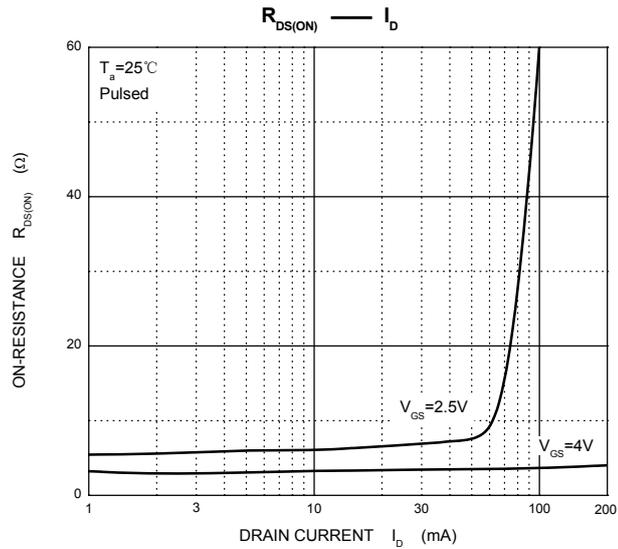
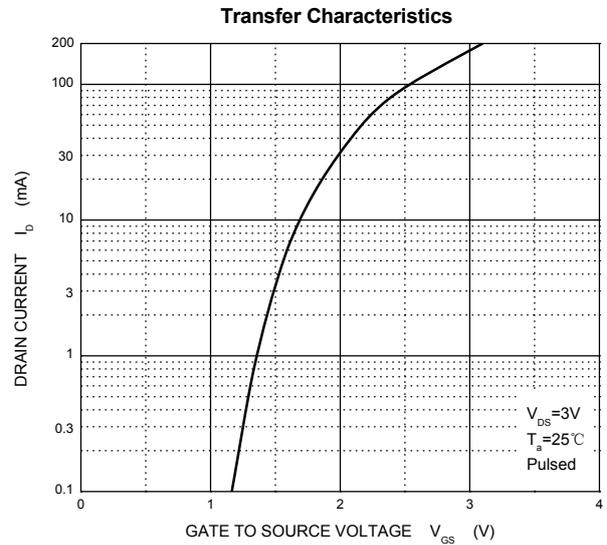
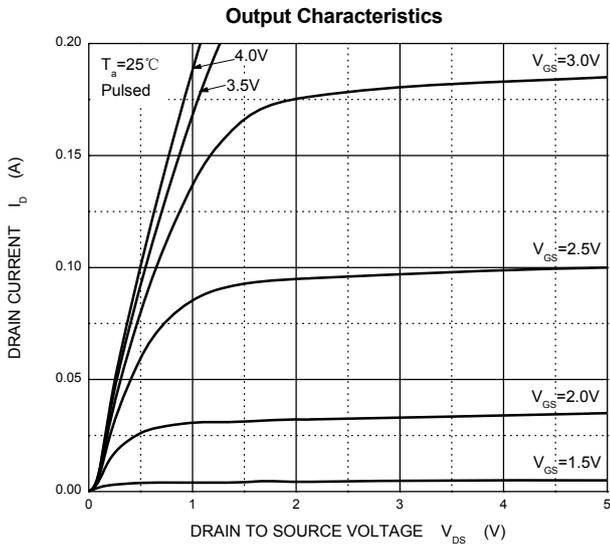
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Electrical characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 10\mu A$	30			V
Gate-source leakage current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			± 1	μA
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 30V, V_{GS} = 0V$			1.0	μA
Gate threshold voltage	$V_{GS(th)}$	$V_{DS} = 3V, I_D = 100\mu A$	0.8		1.5	V
Static drain-source on-state resistance	$R_{DS(on)}$	$V_{GS} = 4V, I_D = 10mA$		5	8	Ω
		$V_{GS} = 2.5V, I_D = 1mA$		7	13	
Forward transconductance	g_{FS}	$V_{DS} = 3V, I_D = 10mA$	20			mS
Input capacitance	C_{iss}	$V_{DS} = 5V, V_{GS} = 0V, f = 1MHz$		13		μF
Output capacitance	C_{oss}			9		
Reverse transfer capacitance	C_{rss}			4		
Turn-on delay time	$t_{d(on)}$	$V_{GS} = 5V, V_{DD} = 5V, I_D = 10mA$ $R_L = 500\Omega, R_G = 10\Omega$		15		ns
Rise time	t_r			35		
Turn-off delay time	$t_{d(off)}$			80		
Fall time	t_f			80		

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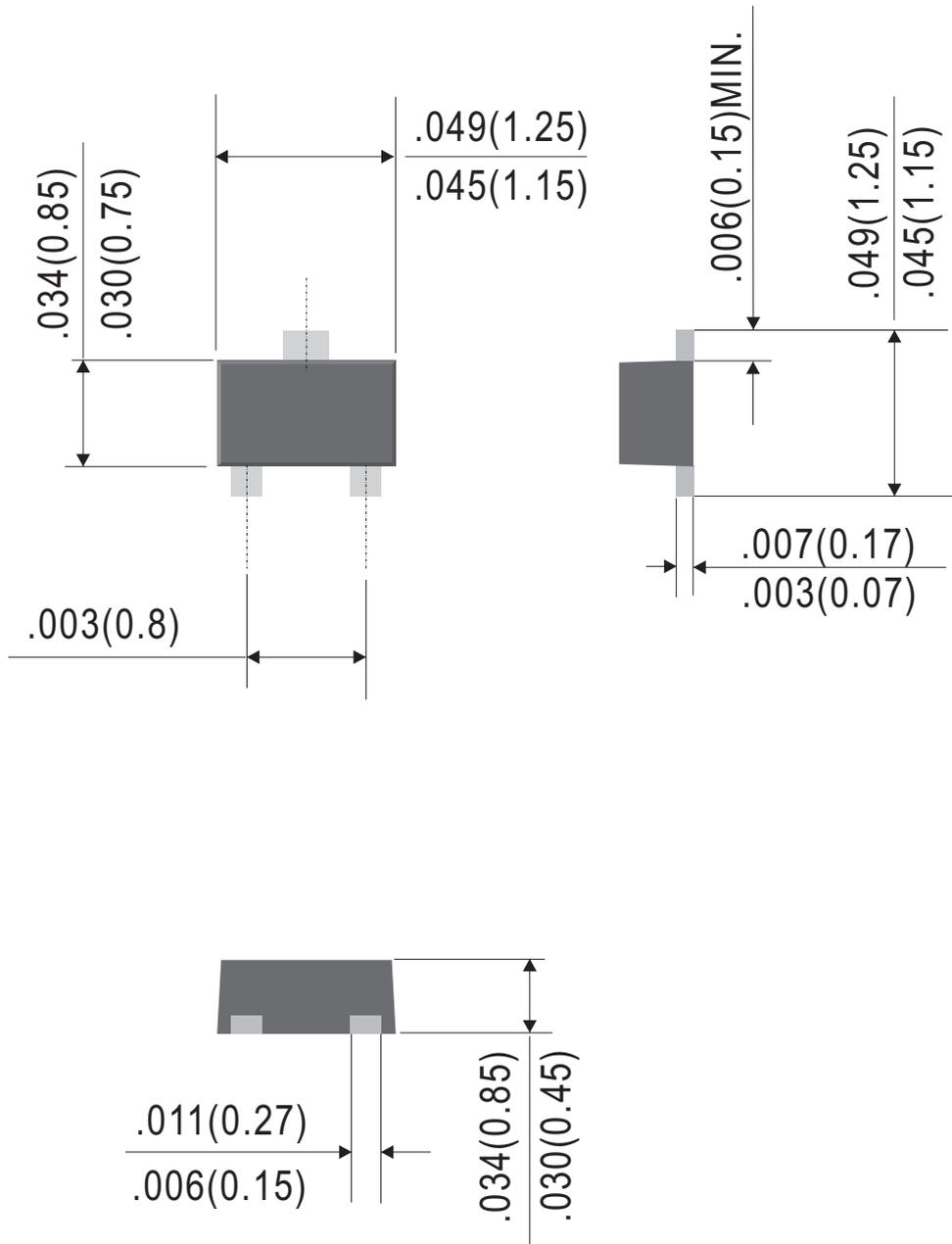
Typical Characteristics



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Outline Drawing

SOT-723



Dimensions in inches and (millimeters)

Rev.C