

/ Revised record

	! " #	\$! % & ,	! () % * +	, -	. /
Rev.G	2018-8-13	0 3 &	$V_{GS(th)}$ 的测试条件原先为: $V_{DS}=10V$ $I_D=1mA$ 改成: $V_{DS}=V_{GS}$ $I_D=250\mu A$	1 2 3	4 5 6
H	2020-9-18	1	7 8 9 : ; < = > ? @ A < = B C	D E	4 5 6
I	2022-5-13	2	VTH 英文描述 Drain-Source Diode Forward Voltage 更正为 Gate Threshold Voltage;	D E	

/ Descriptions

SOT-23 F G G H N I J MOS K L M N ON-CHANNEL MOSFET in a SOT-23 Plastic Package.

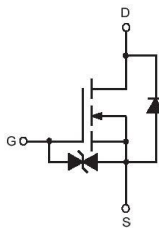
/ Features

P Q % R - S T U V W X Y Z % [\ V W O] V ^ _ ` 2KVO < = B C O
Sensitive gate trigger current and Low Holding current.ESD protected up to 2KV. HF product.

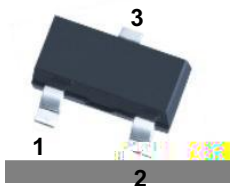
/ Applications

a b c d % e f X g h R - O
Intended for use in general purpose switching and phase control applications.

/ Equivalent Circuit



/ Pinning



PIN1 i G PIN 2 i S PIN 3 i D

/ Marking

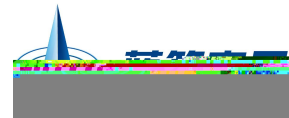
Marking	H702K
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/ Absolute Maximum Ratings(Ta=25 °C)

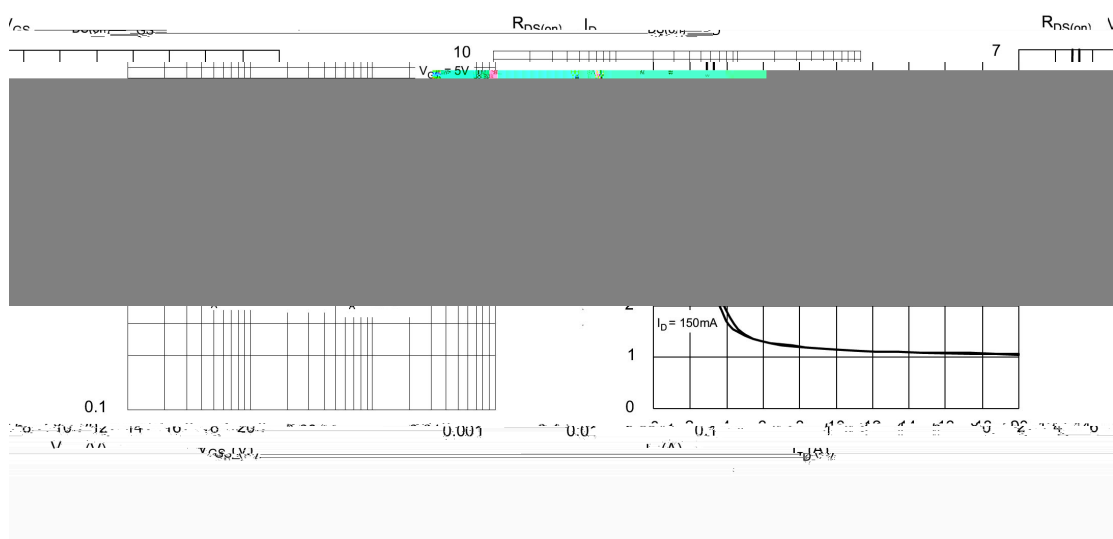
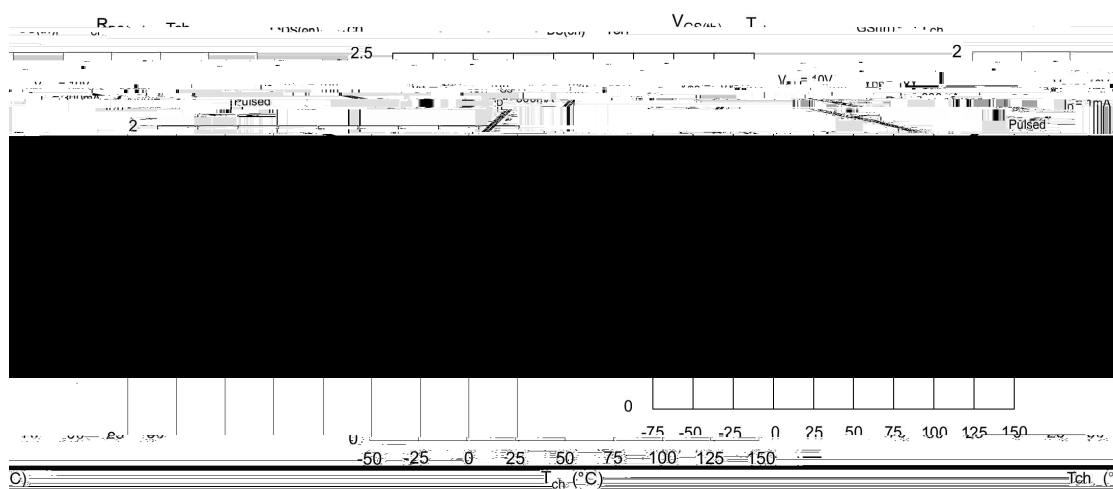
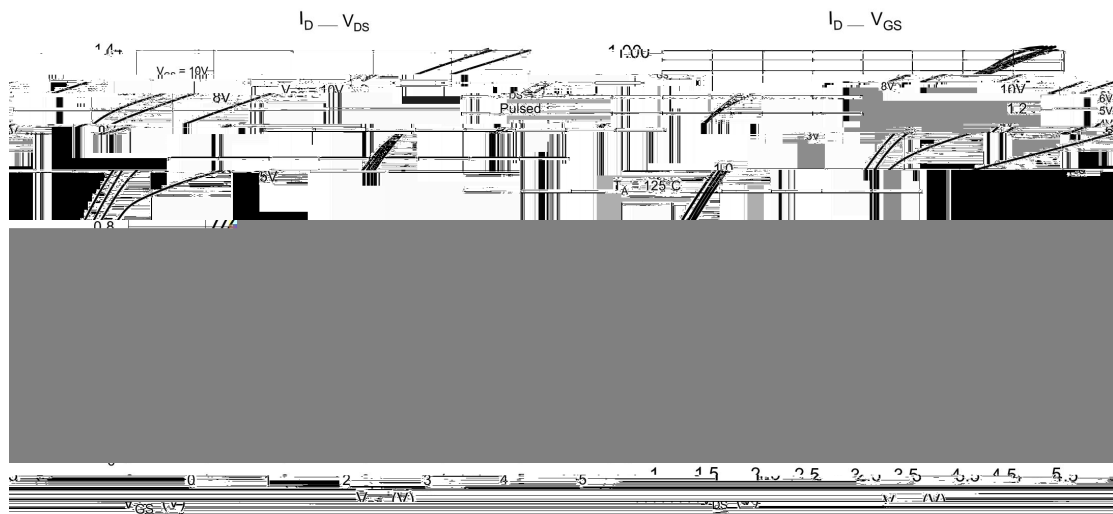
j k Parameter	l m Symbol	k n Rating	o h Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain-Gate Voltage	V_{DGR}	60	V
Drain Current - Continuous	I_D	300	mA
Drain Current - Pulsed	I_{DM}	800	mA
Gate-Source Voltage - Continuous	V_{GSS}	±20	V
Power Dissipation	P_D	350	mW
Storage Temperature Range	T_{stg}	-55~150	°C

/ Electrical Characteristics(Ta=25 °C)

j k Parameter	l m Symbol	p q r s Test Conditions	t u n Min	v w n Typ	t x n Max	o h Unit
Drain-Source Breakdown Voltage	V_{DSS}	$V_{GS}=0$ $I_D=10\mu A$	60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0$ $V_{DS}=60V$			1.0	μA
Gate-Source Leakage current	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 20V$			±10	μA
Static Drain-Source On-Resistance	$R_{DS(on)(1)}$	$V_{GS}=10V$ $I_D=0.5A$			5	Ω
	$R_{DS(on)(2)}$	$V_{GS}=5V$ $I_D=0.05A$			5.5	Ω
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=250mA$			1.5	V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	1.6	2.5	V
Forward Transconductance	Y_{fs}	$V_{DS}=10V$ $I_D=0.2A$	80			ms
Drain-Source On-Voltage	$V_{DS(on)(1)}$	$V_{GS}=10V$ $I_D=500mA$			2.5	V
	$V_{DS(on)(2)}$	$V_{GS}=5.0V$ $I_D=50mA$			0.275	V
Turn-On Time	$t_{d(on)}$	$V_{DD}=25V$ $I_D=500mA$ $R_G=25\Omega$ $R_L=25\Omega$ $V_{gen}=10V$			20	ns
Turn-Off Time	$t_{d(off)}$				40	ns
Input Capacitance	C_{iss}				50	pF
Output Capacitance	C_{oss}	$V_{ds}=25V$ $f=1MHz$ $V_{GS}=0V$			25	pF
Reverse Transfer Capacitance	C_{rss}				5	pF

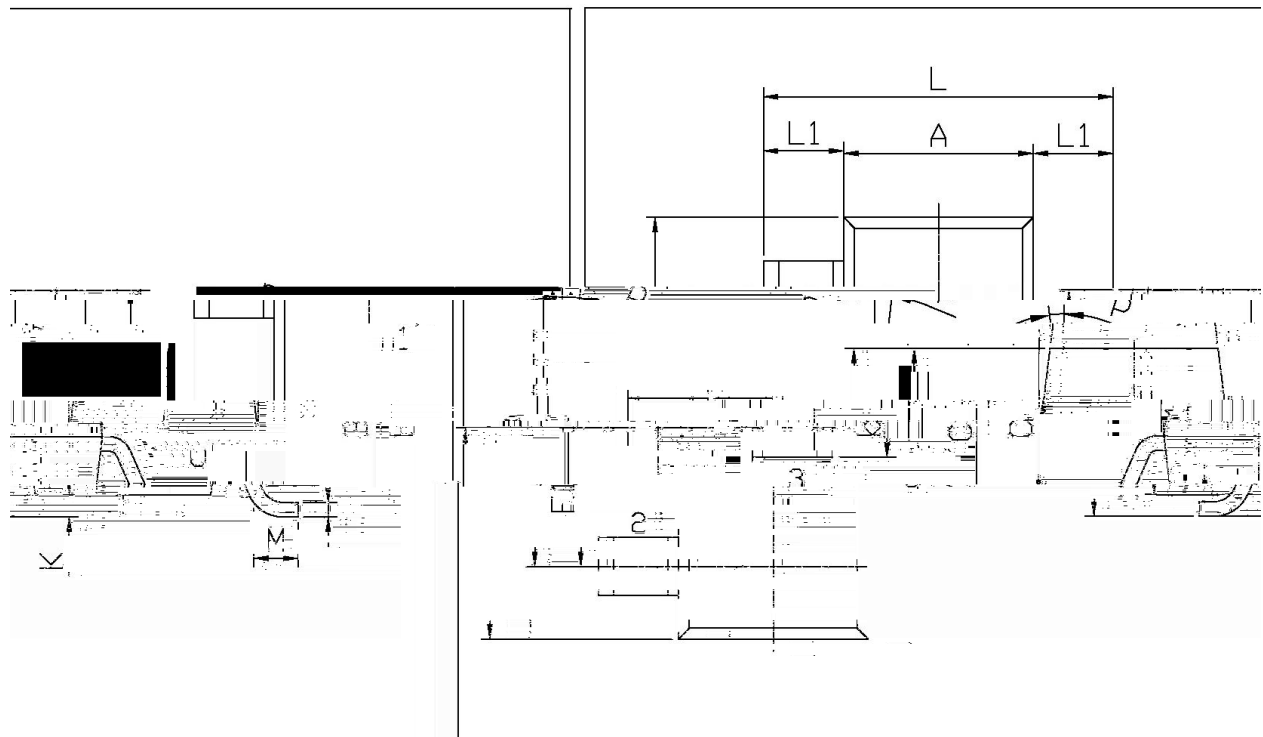


/ Electrical Characteristic Curve



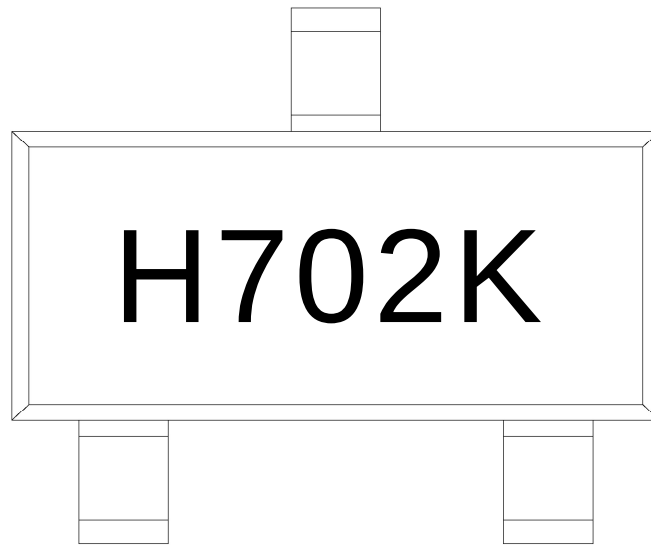
/ Package Dimensions

UNIT: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	φ	0.05	0.20
B	2.70	3.10	K	0.10	0.10
D	0.20MIN		E	2.70	
F	7°		G	0.85	
H			I	0.35	

/ Marking Instructions



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702K i { w m ~ '

Note:

H: Company Code

702K: Product Type

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

说明：

- 1、预热温度 150 ~ 180℃，时间 60 ~ 90sec;
- 2、峰值温度 245±5℃，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10℃/sec.

Note:

- 1.Preheating:150~180℃, Time:60~90sec.
- 2.Peak Temp.:245±5℃, Duration:5±0.5sec.
3. Cooling Speed: 2~10℃/sec.

/ Resistance to Soldering Heat Test Conditions

温度：260±5℃

时间：10±1 sec.

Temp.:260±5℃

Time:10±1 sec