

Description

This -50V P-Channel MOSFET in a SOT-23 Plastic Package.

Applications

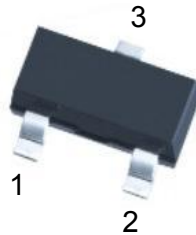
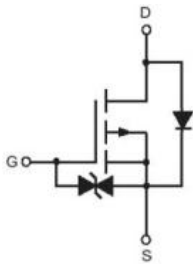
Line current interrupter in telephone sets, Relay, High speed and line transformer drivers.

Features

- Low threshold voltage
- Direct interface to C-MOS
- TTL etc
- High-speed switching
- ESD Improved Capability 1000V
- Halogen Free Product

V_{DSS}	$R_{DS(on)}$ Typ	I_D
-50V	1.8Ω	-130mA

Equivalent Circuit & Pinning



PIN1 : Gate PIN 2 : Source

PIN 3 : Drain

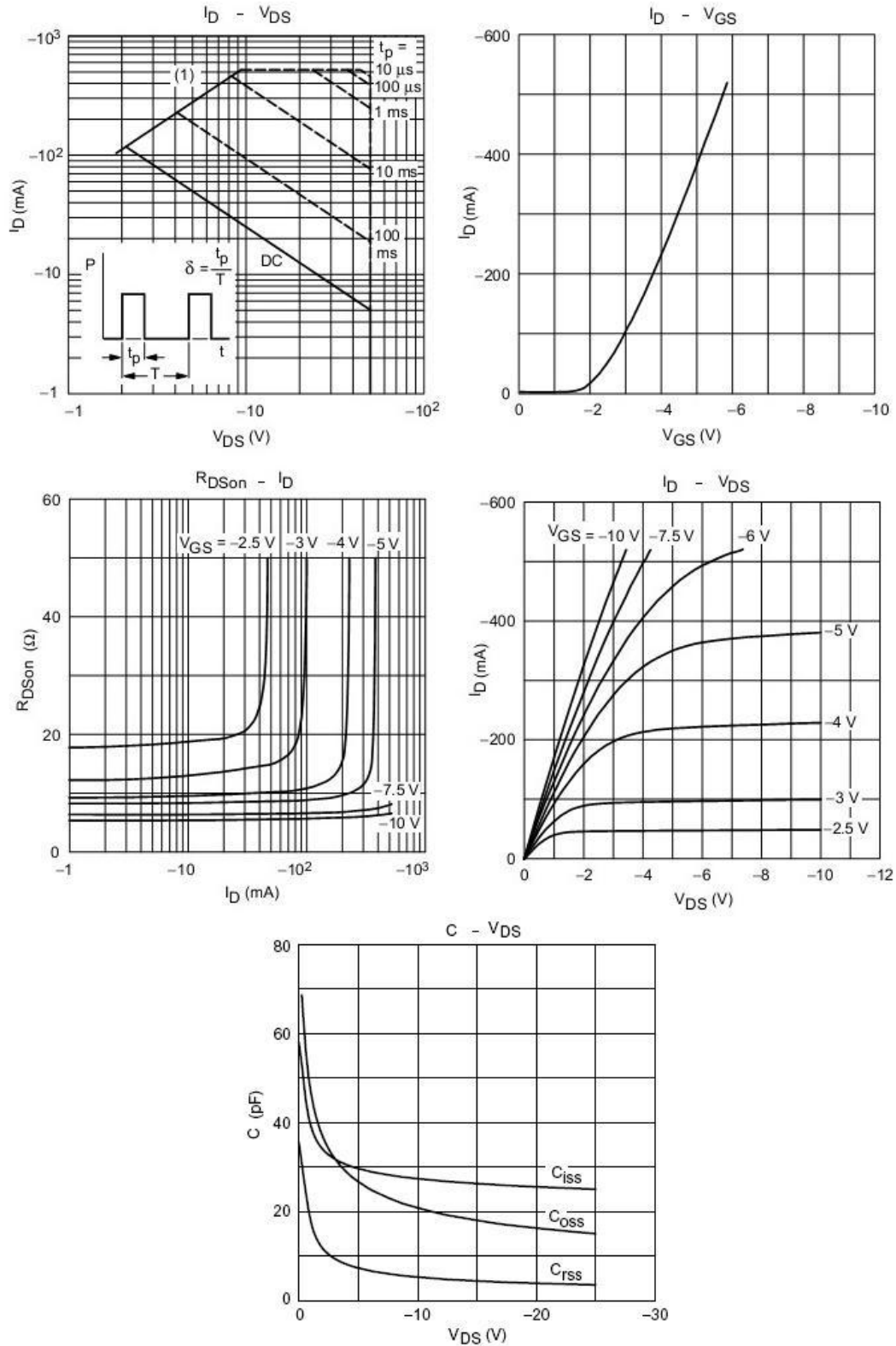
Absolute Maximum Ratings(Ta=25℃)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-50	V
Drain Current – Continuous	I_D	-130	mA
Peak Drain Current	I_{DM}	-520	mA
Gate-Source Voltage	V_{GS}	± 20	V
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	500	℃/W
Storage Temperature Range	T_{stg}	-65 to 150	℃
Junction Temperature Range	T_j	150	℃

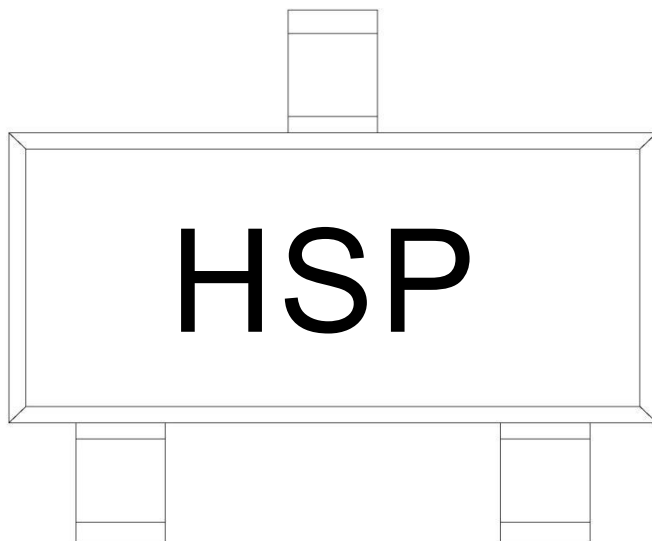
Electrical Characteristics(Ta=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	V_{DS}	$V_{GS}=0V$ $I_D=-10\mu A$	-50			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-0.8		-2.0	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0V$ $V_{DS}=-40V$			-100	nA
		$V_{GS}=0V$ $V_{DS}=-50V$			-10	μA
		$V_{GS}=0V$ $V_{DS}=-50V$ $T_j=125\text{ }^{\circ}C$			-60	μA
Gate–Body Leakage.	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 20V$			± 10	μA
Static Drain–Source On–Resistance	$R_{DS(on)}$	$V_{GS}=-10V$ $I_D=-130mA$		1.8	5	Ω
Forward Transconductance	G_{FS}	$V_{DS}=-25V$ $I_D=-130mA$	50			mS
Input Capacitance	C_{iss}	$V_{DS}=-25V$ $V_{GS}=0V$ $f=1.0MHz$		25	45	pF
Output Capacitance	C_{oss}			15	25	
Reverse Transfer Capacitance	C_{rss}			3.5	12	
Turn–On Time	t_{on}	$V_{GS}=0V \sim -10V$ $V_{DD}=-40V$ $I_D=-200mA$		3		ns
Turn–Off Time	t_{off}	$V_{GS}=-10V \sim 0V$ $V_{DD}=-40V$ $I_D=-200mA$		7		

Electrical Characteristic Curve



Marking Instructions



Note:

H: Halogen Free

SP: Product Type.

Packaging SPEC.

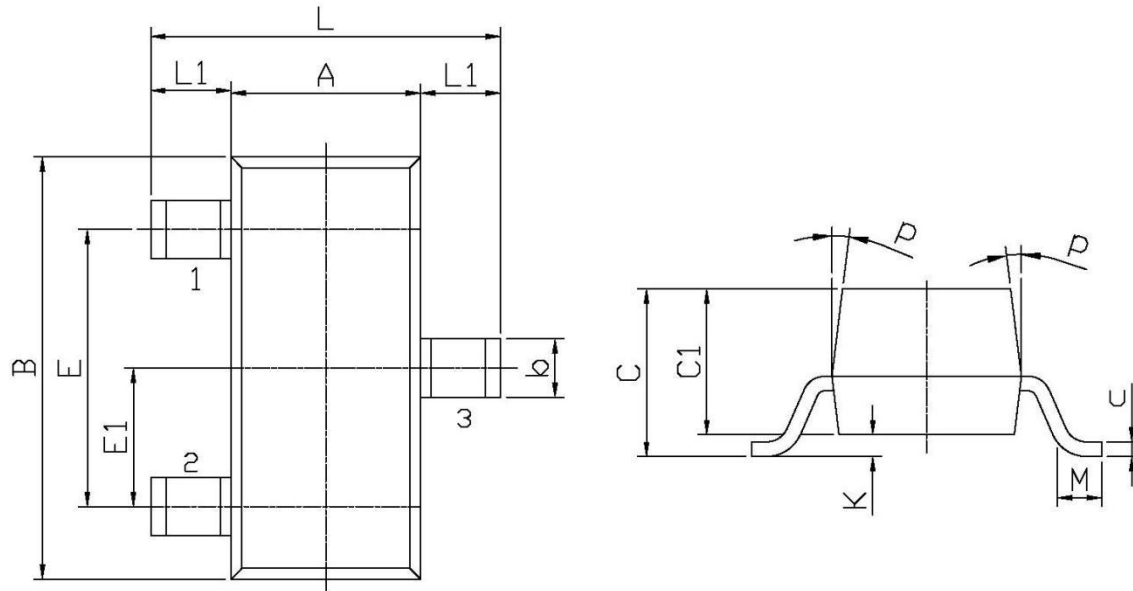
REEL INFORMATION

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7" x8	180×120×180	390×385×205

Package Outline Dimensions

SOT-23

单位: 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	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			