P-Channel Enhancement Mode MOSFET

BSS84DW

Features

HF

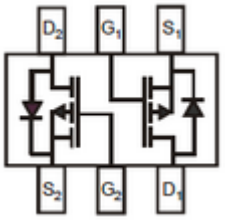
- Low on-resistance
- High-speed switching
- Drive circui ts can be simple
- Parallel use is easy

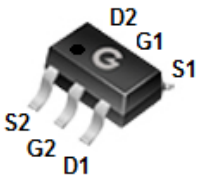
Typical Applications

- P-channel enhancement mode effect transistor
- Switching application

Mechanical Data

- Case: SOT-363
- Molding Compound, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Plated Leads, Solderable Per MIL-STD-202, Method 208





BSS84DW

SOT-363

Ordering Information

Part Number	Package	Shipping	Marking Code
BSS84DW	SOT-363	3000pcs / Tape & Reel	K84

Maximum Ratings (@T_A=25℃ unless otherwise specified)

Parameter	Symbol	Value	Units
Drain-Source Voltage	V_{DSS}	-50	V
Gate -Source Voltage	V_{GSS}	±12	V
Continuous Drain Current (NOTE1)	I_D	-130	mA
Power Dissipation (NOTE1)	P_D	0.3	W

Thermal Characteristics

Parameter	Symbol	Limits	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	417	℃/W
Operating Junction Temperature Range	T_j	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

Electrical Characteristics (@T_A=25℃ unless otherwise specified)

Symbol	Parameter	Test conditions	MIN	TYP	MAX	UNIT
OFF Characteristics						
V_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V,I_D=-250μA	-50	-	-	V
I_{DSS}	Drain to Source Leakage Current	V_{DS}=-50V, V_{GS}=0V	-	-	-1	uA
I_{GSS}	Gate-body Leakage	V_{GS}=±12V, V_{DS}=0V	-	-	±10	nA
ON Characteristics(NOTE2)						
$R_{DS(ON)}$	Static Drain-Source On-resistance	V_{GS}=-5V, I_D=-0.1A	-	2.1	10	Ω
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= V_{GS}, I_D=-1mA	-0.8	-1.6	-2	V
Dynamic Characteristics(NOTE3)						
C_{iss}	Input Capacitance	V_{GS} = 0V	-	56	-	pF
C_{oss}	Output Capacitance	V_{DS} = -20V	-	17	-	
C_{rss}	Reverse Transfer Capacitance	f = 1.0MHz	-	5	-	
Switching Characteristics(NOTE3)						
$t_{d(on)}$	Turn-on Delay Time	V_{DD}=-30V,I_D=0.2A	-	6	-	nS
$t_{d(off)}$	Turn-Off Delay Time	V_{GS}=-10V,R_G=25Ω R_L=150Ω	-	25	-	

NOTE:

1、 Surface Mounted on FR4 Board, t ≤ 10 sec

2、 Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.

3、 Guaranteed by design, not subject to production.

Ratings and Characteristic Curves (T_A=25℃ unless otherwise noted)

FIG 1.OUTPUT CHARACTERISTICS

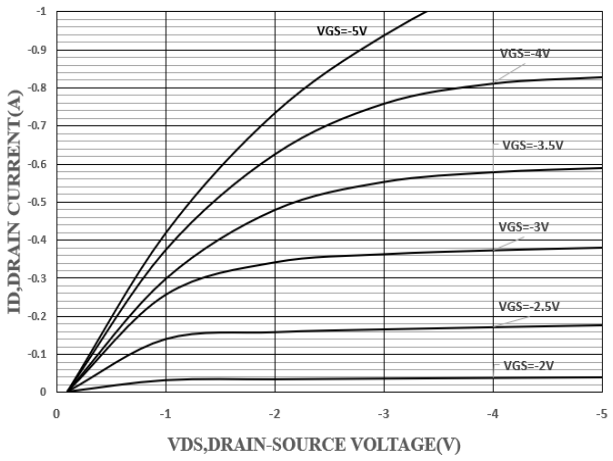


FIG 2.DRAIN-SOURCE ON RESISTANCE

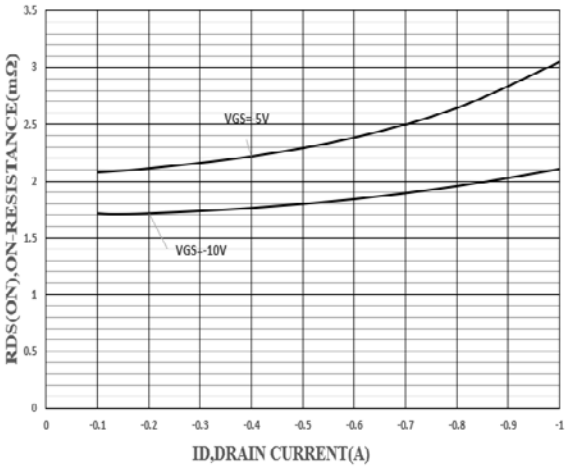


FIG 3.DRAIN-SOURCE ON RESISTANCE

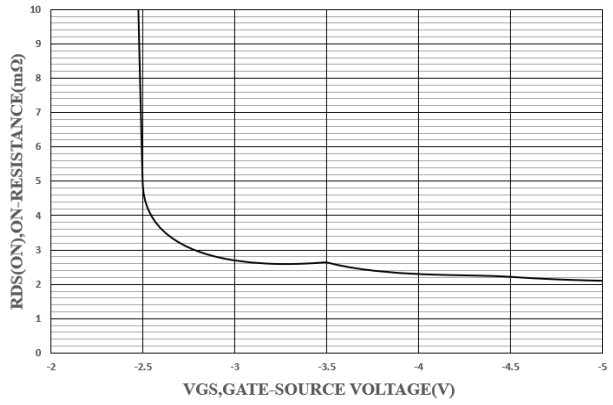


FIG 4.GATE THRESHOLD VOLTAGE

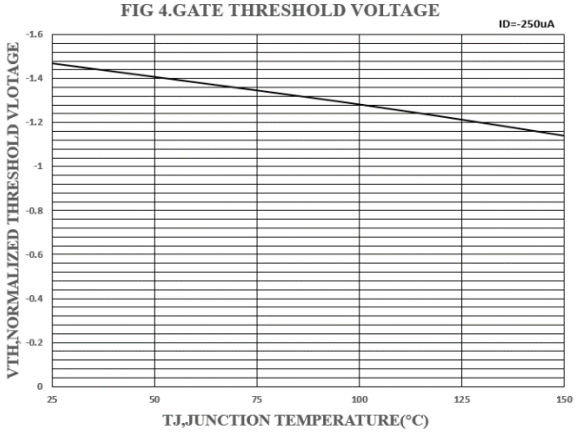


FIG 5.DRAIN-SOURCE ON RESISTANCE

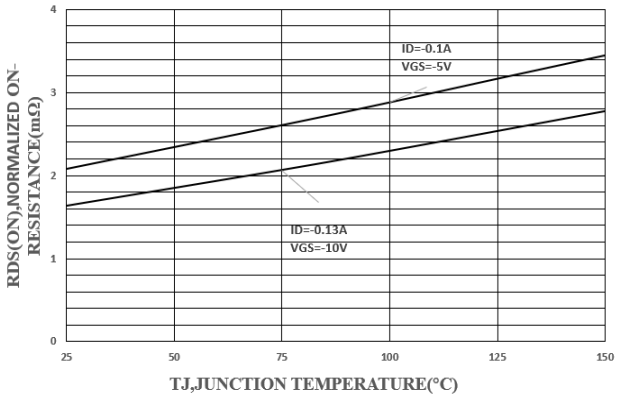
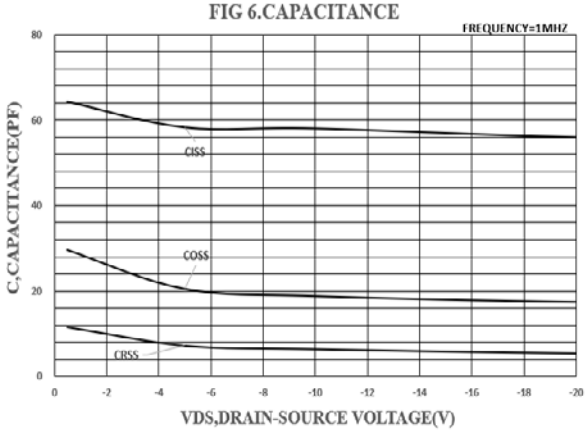


FIG 6.CAPACITANCE



Package Outline Dimensions(unit:mm)

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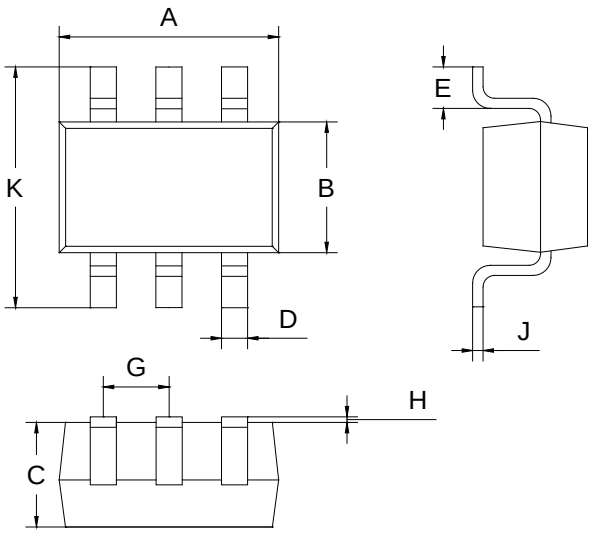

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Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout(unit:mm)

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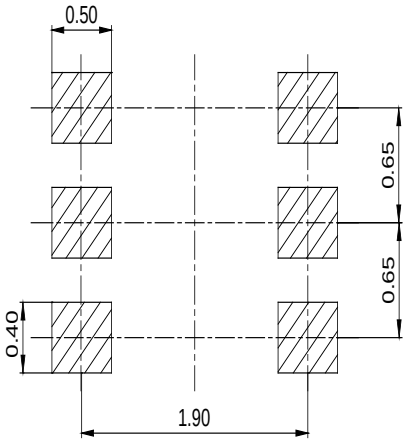

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