

P-Channel Enhancement Mode MOSFET

BSS84DW

Features

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

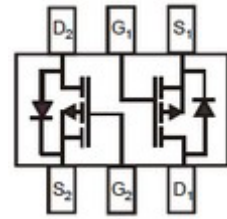
HF

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°C 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 _{θJA}	417	°C/W
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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Electrical Characteristics (@T_A=25°C 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.

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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG 1.OUTPUT CHARACTERISTICS

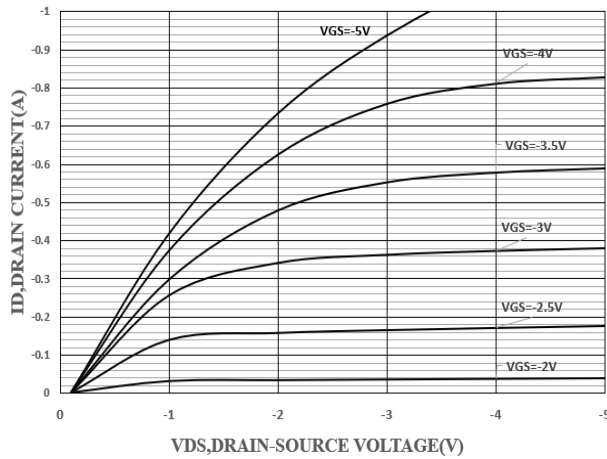


FIG 2.DRAIN-SOURCE ON RESISTANCE

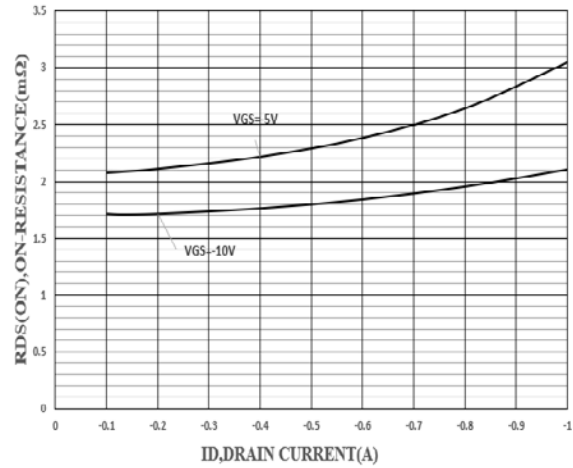


FIG 3.DRAIN-SOURCE ON RESISTANCE

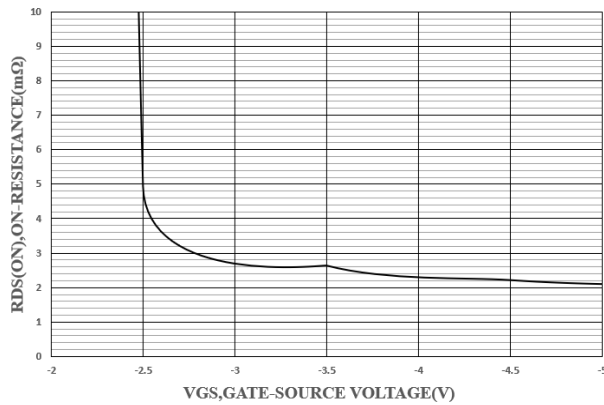


FIG 4.GATE THRESHOLD VOLTAGE

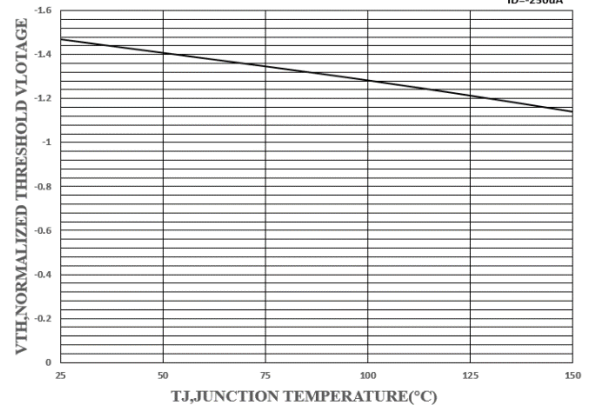


FIG 5.DRAIN-SOURCE ON RESISTANCE

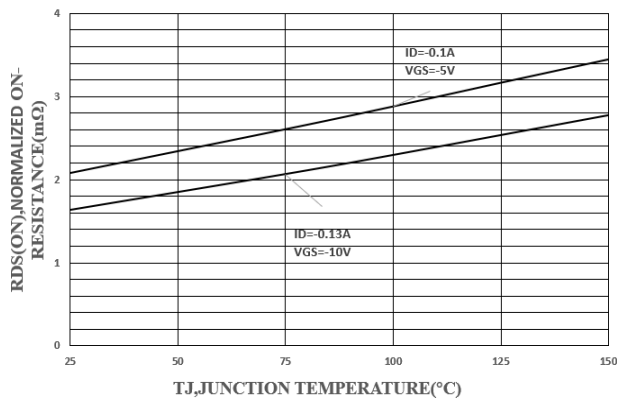


FIG 6.CAPACITANCE

