

Features

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

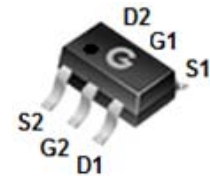
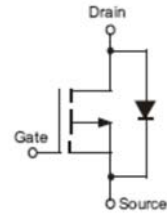


Typical Applications

- 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	3000/Tape&Reel	K84

□: none is for Lead Free package;

“G” is for Halogen Free package.

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

Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test conditions	MIN	TYP	MAX	UNIT
OFF Characteristics						
V_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=-250\mu A$	-50	-	-	V
I_{DSS}	Drain to Source Leakage Current	$V_{DS}=-50V, V_{GS}=0V$	-	-	-1	μA
I_{GSS}	Gate-body Leakage	$V_{GS}=\pm 12V, V_{DS}=0V$	-	-	± 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	$V_{GS}=-10V, R_G=25\Omega$ $R_L=150\Omega$	-	25	-	

NOTE:

- 1、 Surface Mounted on FR4 Board, $t \leq 10$ sec
- 2、 Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.
- 3、 Guaranteed by design, not subject to production.

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

FIG 1.OUTPUT CHARACTERISTICS

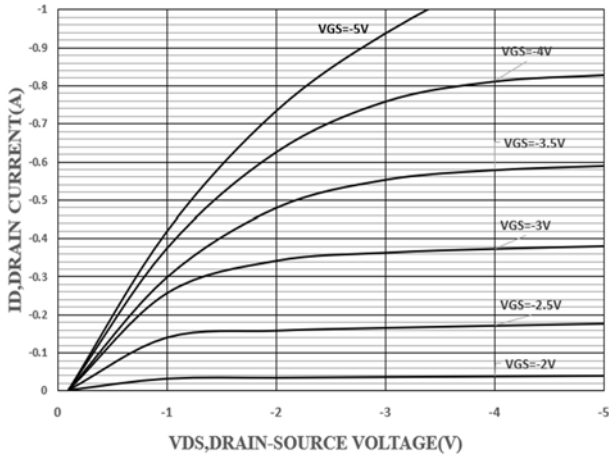


FIG 2.DRAIN-SOURCE ON RESISTANCE

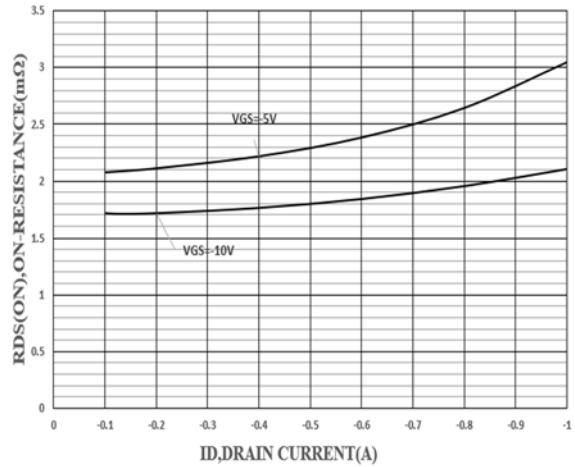


FIG 3.DRAIN-SOURCE ON RESISTANCE

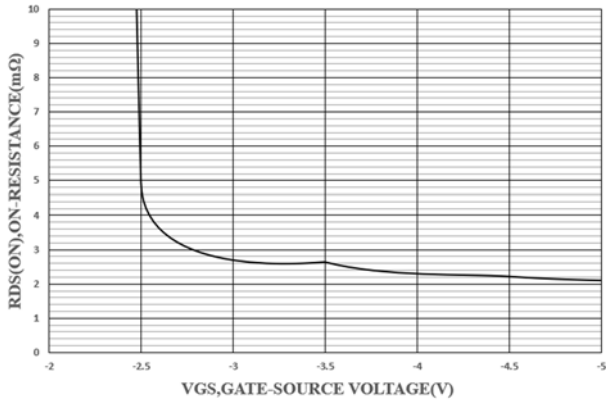


FIG 4.GATE THRESHOLD VOLTAGE

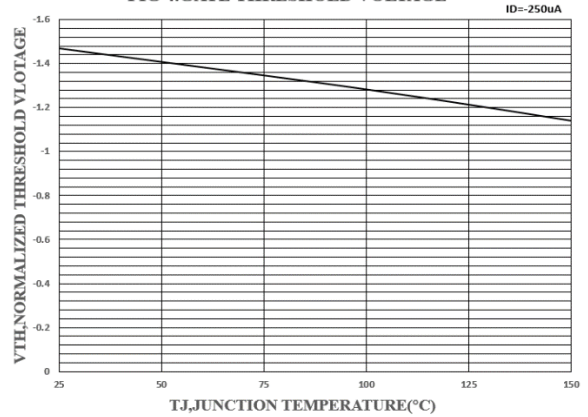


FIG 5.DRAIN-SOURCE ON RESISTANCE

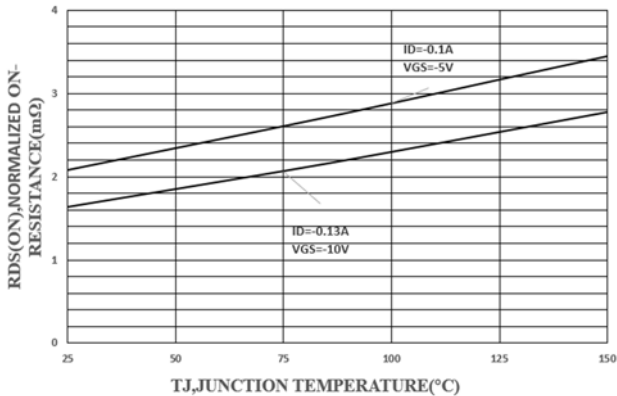
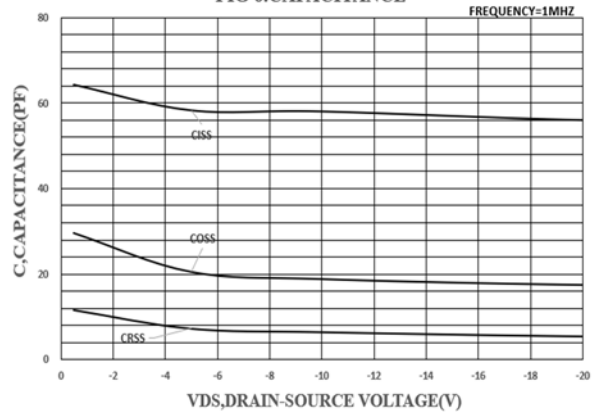
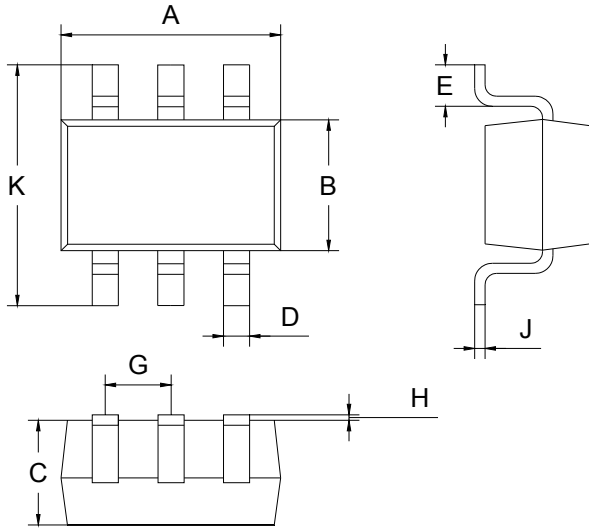


FIG 6.CAPACITANCE



Package Outline Dimensions(unit:mm)

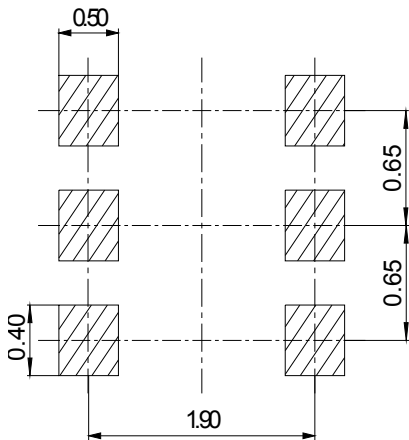
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Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout(unit:mm)

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