BSS84DW

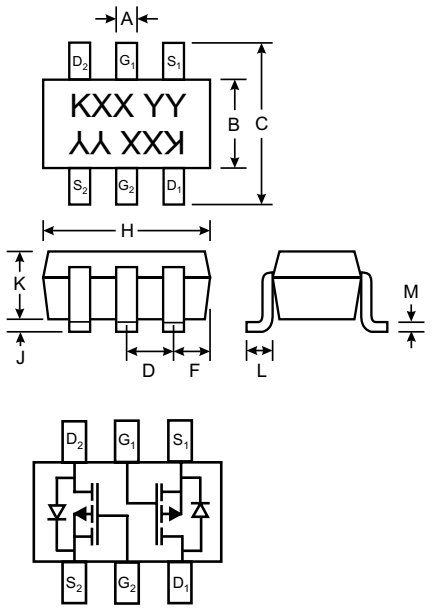
DUAL P-CHANNEL ENHANCEMENT MODE FIELD EFFECT TRANSISTOR

Features

- Low On-Resistance
- Low Gate Threshold Voltage
- Low Input Capacitance
- Fast Switching Speed

Mechanical Data

- Case: SOT-363, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Terminal Connections: See Diagram
- Marking: KXX: Product marking code
  YY: Date code
- Marking Code: K84
- Weight: 0.006 grams (approx.)



SOT-363		
Dim	**Min**	**Max**
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
F	0.30	0.40
H	1.80	2.20
J	—	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic		Symbol	BSS84DW	Units
Drain-Source Voltage		V_{DSS}	-50	V
Drain-Gate Voltage (Note 3)		V_{DGR}	-50	V
Gate-Source Voltage	Continuous	V_{GSS}	±20	V
Drain Current (Note 1)	Continuous	I_D	-130	mA
Total Power Dissipation (Note 1)		P_d	200	mW
Thermal Resistance, Junction to Ambient		$R_{\theta JA}$	625	°C/W
Operating and Storage Temperature Range		T_j, T_{STG}	-55 to +150	°C

Note: 1. Valid provided that terminals are kept at specified ambient temperature.
2. Pulse width ≤ 300μs, duty cycle ≤ 2%.
3. R_{GS} ≤ 20KΩ.

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 2)						
Drain-Source Breakdown Voltage	BV_{DSS}	-50	-75	—	V	V_{GS} = 0V, I_D = -250μA
Zero Gate Voltage Drain Current	I_{DSS}	— — —	— — —	-15 -60 -100	μA μA nA	V_{DS} = -50V, V_{GS} = 0V, T_J = 25°C V_{DS} = -50V, V_{GS} = 0V, T_J = 125°C V_{DS} = -25V, V_{GS} = 0V, T_J = 25°C
Gate-Body Leakage	I_{GSS}	—	—	±10	nA	V_{GS} = ±20V, V_{DS} = 0V
ON CHARACTERISTICS (Note 2)						
Gate Threshold Voltage	$V_{GS(th)}$	-0.8	-1.6	-2.0	V	V_{DS} = V_{GS}, I_D = -1mA
Static Drain-Source On-Resistance	$R_{DS\ (ON)}$	—	6	10	Ω	V_{GS} = -5V, I_D = 0.100A
Forward Transconductance	g_{FS}	.05	—	—	S	V_{DS} = -25V, I_D = 0.1A
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}	—	—	45	pF	V_{DS} = -25V, V_{GS} = 0V f = 1.0MHz
Output Capacitance	C_{oss}	—	—	25	pF	
Reverse Transfer Capacitance	C_{rss}	—	—	12	pF	
SWITCHING CHARACTERISTICS						
Turn-On Delay Time	$t_{D(ON)}$	—	10	—	ns	V_{DD} = -30V, I_D = -0.27A, R_{GEN} = 50Ω, V_{GS} = -10V
Turn-Off Delay Time	$t_{D(OFF)}$	—	18	—	ns	

Note: 1. Valid provided that terminals are kept at specified ambient temperature.
2. Pulse width ≤ 300μs, duty cycle ≤ 2%.
3. R_{GS} ≤ 20KΩ.