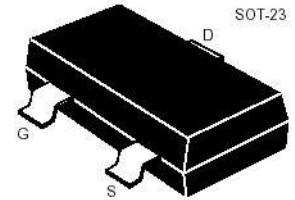


BSS138

SOT-23 場效應晶體管(SOT-23 Field Effect Transistors)



N-Channel Enhancement-Mode MOS FETs

N 沟道增强型 MOS 场效应管

■ MAXIMUM RATINGS 最大額定值

Characteristic 特性參數	Symbol 符號	Max 最大值	Unit 單位
Drain-Source Voltage 漏極-源極電壓	BV_{DSS}	50	V
Gate- Source Voltage 柵極-源極電壓	V_{GS}	± 20	V
Drain Current (continuous) 漏極電流-連續	I_{DR}	220	mA
Drain Current (pulsed) 漏極電流-脉冲	I_{DRM}	880	mA

■ THERMAL CHARACTERISTICS 熱特性

Characteristic 特性	Symbol 符號	Max 最大值	Unit 單位
Total Device Dissipation 總耗散功率 $T_A=25^\circ\text{C}$ 環境溫度為 25°C Derate above 25°C 超過 25°C 遞減	P_D	225 1.8	mW mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	350	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature 結溫和儲存溫度	T_J, T_{stg}	150 $^\circ\text{C}$, -55to+150 $^\circ\text{C}$	

■ DEVICE MARKING 打標

BSS138=SS

■ ELECTRICAL CHARACTERISTICS 電特性

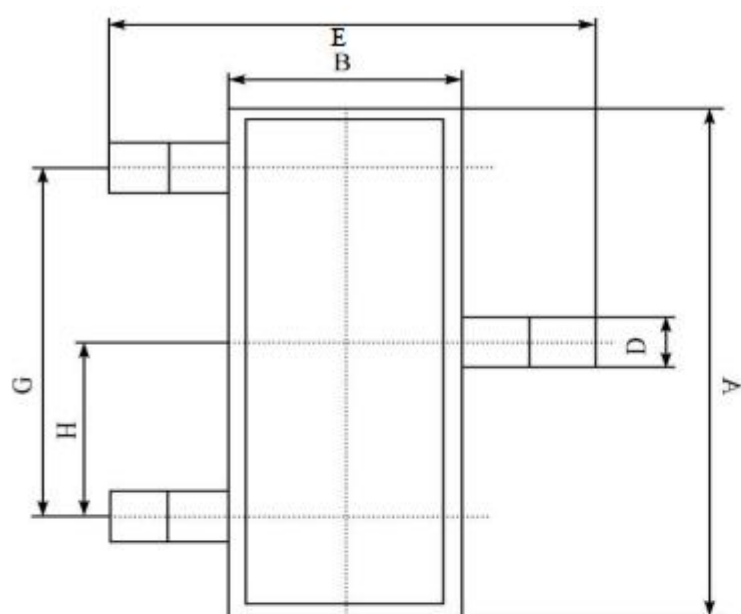
 (T_A=25°C unless otherwise noted 如無特殊說明, 溫度為 25°C)

Characteristic 特性參數	Symbol 符號	Min 最小值	Typ 典型值	Max 最大值	Unit 單位
Drain-Source Breakdown Voltage 漏極-源極擊穿電壓(I _D =250uA, V _{GS} =0V)	BV _{DSS}	50	—	—	V
Gate Threshold Voltage 柵極開啟電壓(I _D =1mA, V _{GS} = V _{DS})	V _{GS(th)}	0.8	—	1.6	V
Diode Forward Voltage Drop 內附二極管正向壓降(I _{SD} =220mA, V _{GS} =0V)	V _{SD}	—	—	1.4	V
Zero Gate Voltage Drain Current 零柵壓漏極電流(V _{GS} =0V, V _{DS} = BV _{DSS}) (V _{GS} =0V, V _{DS} =0.6BV _{DSS})	I _{DSS}	—	—	0.5 100	uA nA
Gate Body Leakage 柵極漏電流(V _{GS} =±20V, V _{DS} =0V)	I _{GSS}	—	—	±100	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻(I _D =220mA, V _{GS} =10V) (I _D =220mA, V _{GS} =4.5V)	R _{DS(ON)}	—	—	3.5 6	Ω
Input Capacitance 輸入電容 (V _{GS} =0V, V _{DS} =25V, f=1MHz)	C _{ISS}	—	—	50	pF
Common Source Output Capacitance 共源輸出電容(V _{GS} =0V, V _{DS} =25V, f=1MHz)	C _{OSS}	—	—	25	pF
Turn-ON Time 开启時間 (V _{DS} =30V, I _D =200mA, R _{GEN} =25 Ω)	t _(on)	—	—	20	ns
Turn-OFF Time 关断時間 (V _{DS} =30V, I _D =200mA, R _{GEN} =25 Ω)	t _(off)	—	—	20	ns

1. FR-5=1.0×0.75×0.062in.
2. Alumina=0.4×0.3×0.024in.99.5%alumina.
3. Pulse Width≤300 μ s; Duty Cycle≤2.0%.

■ DIMENSION 外形封裝尺寸

單位(UNIT): mm



代碼	範圍(單位:mm)
A	2.80~3.00
B	1.20~1.40
C	0.90~1.10
D	0.30~0.50
E	2.20~2.60
G	1.80~2.00
H	0.90~1.00
J	0.08~0.18
K	0.02~0.12
M	≥0.22
N	0.50~0.70
P	6°~10°

