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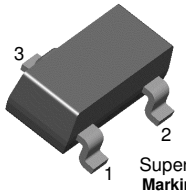
MMBF5434

N-Channel Switch

- This device is designed for digital switching applications where very low on resistance is mandatory.
- Sourced from Process 58.



SuperSOT-3
Marking: 61Z

1. Drain 2. Source 3. Gate

Absolute Maximum Ratings * T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{DG}	Drain-Gate Voltage	25	V
V_{GS}	Gate-Source Voltage	-25	V
I_{GF}	Forward Gate Current	10	mA
T_J, T_{stg}	Operating and Storage Junction Temperature Range	-55 ~ +150	°C

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:
1) These ratings are based on a maximum junction temperature of 150 degrees C.
2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)GSS}$	Gate-Source Breakdwon Voltage	I_G = -1.0μA, V_{DS} = 0	-25		V
I_{GSS}	Gate Reverse Current	V_{GS} = -15V, V_{DS} = 0		200	nA
V_{GS}(off)	Gate-Source Cutoff Voltage	V_{DS} = 5.0V, I_D = 3.0nA	-1.0	-4.0	V
I_D(off)	Drain Cutoff Voltag	V_{DS} = 5.0, V_{GS} = -10V		200	pA
On Characteristics					
I_{DSS}	Zero-Gate Voltage Drain Current *	V_{DS} = 15V, I_{GS} = 0	30		mA
r_{DS}(on)	Drain-Source On Resistance	V_{DS} = 0, I_D = 10mA		10	Ω
Small Signal Characteristics					
C_{iss}	Input Capacitance	V_{DS} = 0, V_{GS} = 10V, f = 1.0MHz		30	pF
C_{rss}	Reverse Transfer Capacitance	V_{DS} = 0, V_{GS} = 10V, f = 1.0MHz		15	pF

* Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%

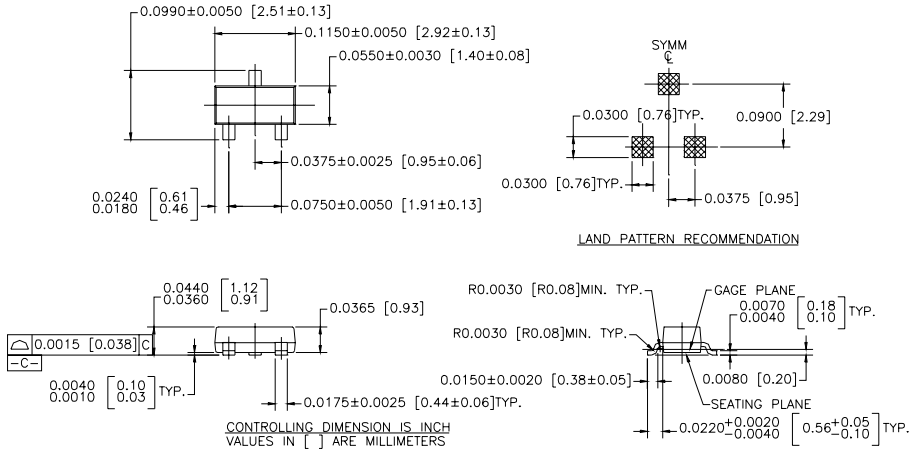
Thermal Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	350 2.8	mW mW/°C
$R_{\theta JC}$	Thermal Resistance, Junction to Case		°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	556	°C/W

* Device mounted on FR-4 PCB 1.6" × 1.6" × 0.06"

Package Dimensions

SuperSOT-3



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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