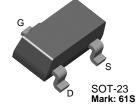


# MMBFJ270

### **P-Channel Switch**

- This device is designed for low level analog switching sample and hold circuits and chopper stabilized amplifiers.
- Sourced from process 88.



1. Drain 2. Gate 3. Source

## **Absolute Maximum Ratings\*** T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
$V_{DG}$	Drain-Gate Voltage	-30	V
V <sub>GS</sub>	Gate-Source Voltage	30	V
I <sub>GF</sub>	Forward Gate Current	50	mA
T <sub>J</sub> , T <sub>STG</sub>	Operating and Storage Junction Temperature Range	-55 ~ 150	°C

<sup>\*</sup> This ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

- These rating are based on a maximum junction temperature of 150 degrees C.
  These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

# Electrical Characteristics T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Charac	Off Characteristics				
V <sub>(BR)GSS</sub>	Gate-Source Breakdwon Voltage	$I_G = -1.0 \mu A, V_{DS} = 0$	30		V
I <sub>GSS</sub>	Gate Reverse Current	$V_{GS} = -20V, V_{DS} = 0$		200	pА
V <sub>GS(off)</sub>	Gate-Source Cutoff Voltage	$V_{DS} = -15V, I_{D} = 1.0nA$	0.5	2.0	V
On Charac	On Characteristics				
I <sub>DSS</sub>	Zero-Gate Voltage Drain Current *	$V_{DS} = -15V, V_{GS} = 0$	-2.0	-15	mA
Small Signal Characteristics					
gfs	Forward Transferconductance	$V_{GS} = 0V, V_{DS} = 15V, f = 1.0kHz$	6000	15000	μmhos
goss	Common- Source Output Conductance	$V_{GS} = 0V, V_{DS} = 15V, f = 1.0kHz$		200	μmhos

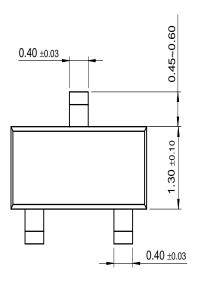
## Thermal Characteristics TA=25°C unless otherwise noted

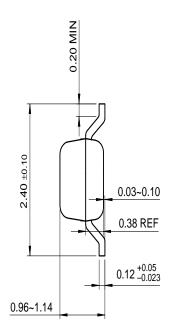
Symbol	Parameter	Max.	Units
P <sub>D</sub>	Total Device Dissipation	225	mW
	Derate above 25°C	1.8	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	556	°C/W

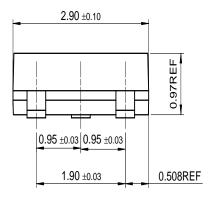
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# **Package Dimensions**

# **SOT-23**







Dimensions in Millimeters

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EcoSPARK™	GTO™ .	MSX <sup>TM</sup>	QT Optoelectronics™	TinyLogic <sup>®</sup>
E <sup>2</sup> CMOS <sup>TM</sup>	HiSeC™	MSXPro™	Quiet Series™	TINYOPTO™
EnSigna™	I <sup>2</sup> C <sup>TM</sup>	$OCX^{TM}$	RapidConfigure™	TruTranslation™
FACT™	ImpliedDisconnect™	OCXPro™	RapidConnect™	UHC™
Across the boar	d. Around the world.™	OPTOLOGIC®	SILENT SWITCHER®	UltraFET®
The Power Fran		OPTOPLANAR™	SMART START™	VCX <sup>TM</sup>
Programmable A		PACMAN™	SPM™	

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### PRODUCT STATUS DEFINITIONS

### **Definition of Terms**

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