

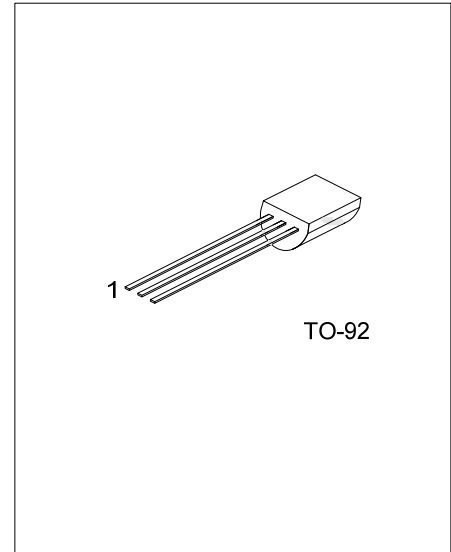
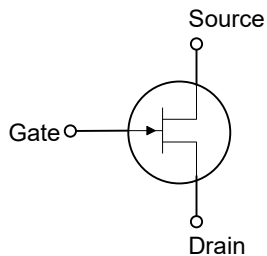


### N-CHANNEL JFET LOW-FREQUENCY LOW-NOISE AMPLIFIER

#### FEATURES

- \* Designed for Low Level Analog Switching, Sample and Hold Circuits and Chopper Stabilized Amplifiers
- \* Source & Drain are Interchangeable

#### SYMBOL



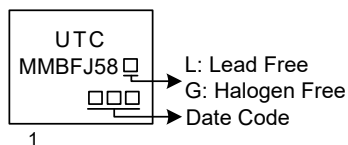
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MMBFJ58L-T92-B	MMBFJ58G-T92-B	TO-92	D	S	G	Tape Reel
MMBFJ58L-T92-K	MMBFJ58G-T92-K	TO-92	D	S	G	Tape Reel

Note: Pin Assignment: D: Drain S: Source G: Gate

<p>MMBFJ58G-T92-B</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Drain-Source Voltage	$V_{DS}$	40	V
Drain-Gate Voltage	$V_{DG}$	40	V
Gate-Source Voltage	$V_{GS}$	-40	V
Forward Gate Current	$I_{GF}$	50	mA
Power Dissipation	$P_D$	625	mW
Junction Temperature	$T_J$	-55 ~ +150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATING	UNIT
Junction to Ambient	$\theta_{JA}$	200	$^{\circ}\text{C/W}$
Case to Ambient	$\theta_{JC}$	125	$^{\circ}\text{C/W}$

Note: Device mounted on FR-4 PCB.

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>OFF CHARACTERISTICS</b>						
Gate-Source Breakdown Voltage	$V_{(BR)GS}$	$I_G=-1.0\mu\text{A}$ , $V_{DS}=0$	-40			V
Gate Reverse Current (Note)	$I_{GSS}$	$V_{GS}=-20\text{V}$ , $V_{DS}=0$			-1.0	nA
Gate-Source Cut-Off Voltage	$V_{GS(OFF)}$	$V_{DS}=15\text{V}$ , $I_D=10\text{nA}$	-2		-5	V
Off-State Drain Current	$I_{D(OFF)}$	$V_{GS}=-12\text{V}$ , $V_{DS}=15\text{V}$			1	nA
<b>ON CHARACTERISTICS</b>						
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=15\text{V}$ , $V_{GS}=0$	8.0		80	mA
Drain-Source On Voltage	$V_{DS(ON)}$	$I_D=12\text{mA}$ , $V_{GS}=0$			0.4	V
Drain-Source On Resistance	$R_{DS(ON)}$	$V_{DS} \leq 0.1\text{V}$ , $V_{GS}=0$			60	$\Omega$

Note: Pulse test: pulse width  $\leq 300\mu\text{s}$ , duty cycle  $\leq 2\%$ .

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