



MMBFJ177

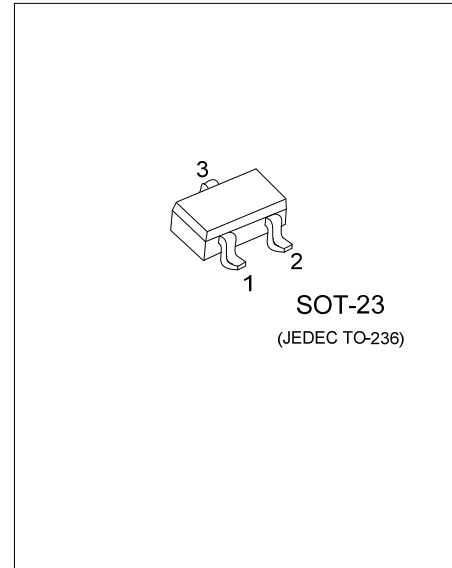
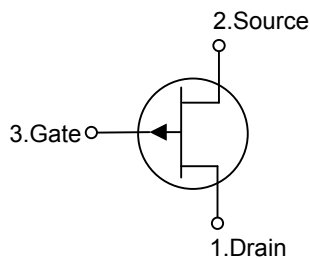
JFET

P-CHANNEL SWITCH

DESCRIPTION

The UTC **MMBFJ177** is designed for low level analog switching sample and hold circuits and chopper stabilized amplifiers.

SYMBOL



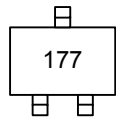
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MMBFJ177G-AE3-R	MMBFJ177G-AE3-R	SOT-23	D	S	G	Tape Reel

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

MMBFJ177G-AE3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AE3: SOT-23
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

MARKING



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

PARAMETER	SYMBOL	RATING	UNIT
Drain-Gate Voltage	V_{DG}	-30	V
Gate-Source Voltage	V_{GS}	30	V
Forward Gate Current	I_{GF}	50	mA
Power Dissipation	P_D	225	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	θ_{JA}	556	$^\circ\text{C/W}$

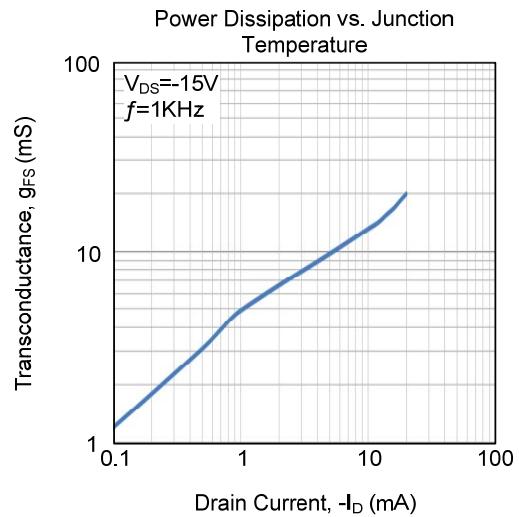
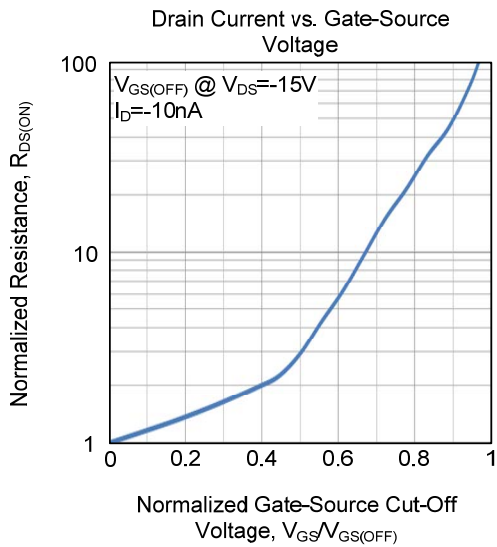
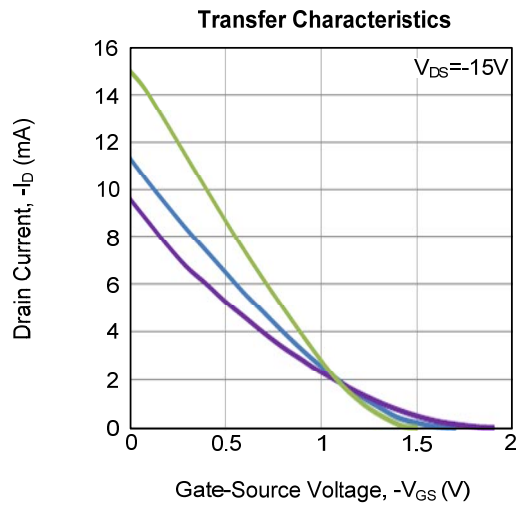
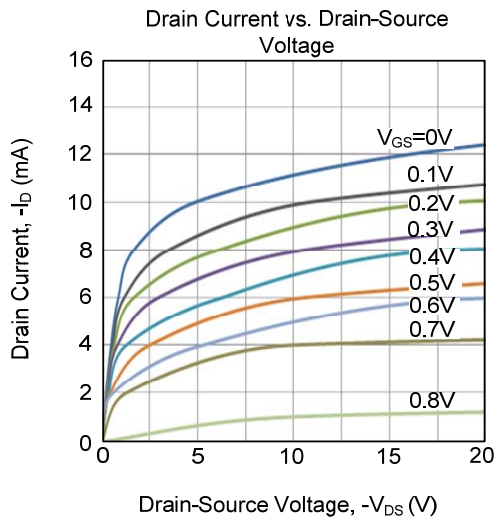
Note: Device mounted on FR-4 PCB 36mm × 18mm × 1.5mm, mounting pad for the collector lead minimum 6cm².

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G=1.0\mu\text{A}$, $V_{DS}=0$	30			V
Gate Reverse Current (Note)	I_{GSS}	$V_{GS}=20\text{V}$, $V_{DS}=0$			1.0	nA
Gate-Source Cut-Off Voltage	$V_{GS(OFF)}$	$V_{DS}=-15\text{V}$, $I_D=-10\text{nA}$	0.8		2.5	V
ON CHARACTERISTICS						
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-15\text{V}$, $V_{GS}=0$	-1.5		-20	mA
Drain-Source On Resistance	$R_{DS(ON)}$	$V_{DS} \leq 0.1\text{V}$, $V_{GS}=0$			300	Ω

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

■ TYPICAL CHARACTERISTICS



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