



MMBFJ110

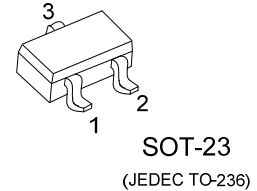
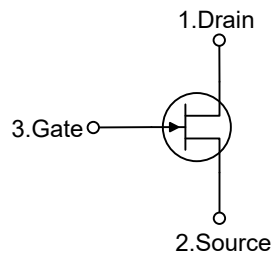
JFET

N-CHANNEL SWITCH

DESCRIPTION

The UTC **MMBFJ110** device is designed for digital switching applications where very low on resistance is mandatory.

SYMBOL



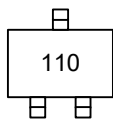
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MMBFJ110G-AE3-R	MMBFJ110G-AE3-R	SOT-23	D	S	G	Tape Reel

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

MMBFJ110G-AE3-R	(1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) AE3: SOT-23 (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}	25	V
Gate-Source Voltage	V_{GS}	-25	V
Forward Gate Current	I_{GF}	10	mA
Power Dissipation	P_D	460	mW
Junction Temperature	T_J	+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}	270	$^{\circ}\text{C/W}$

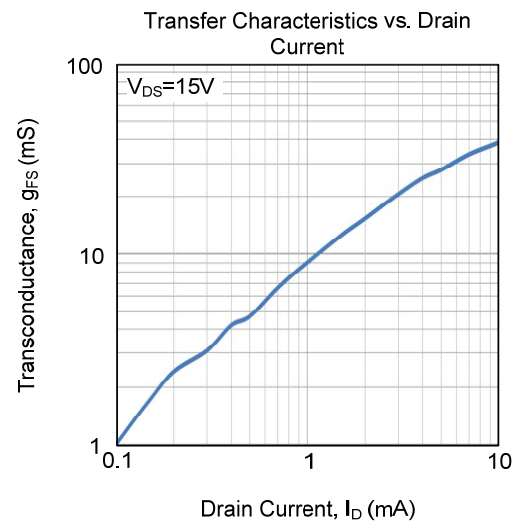
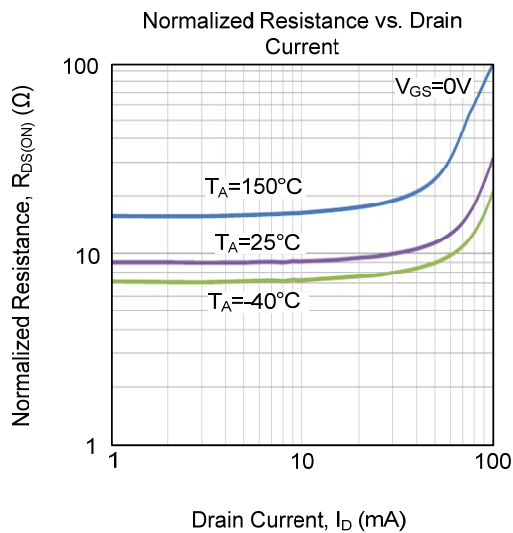
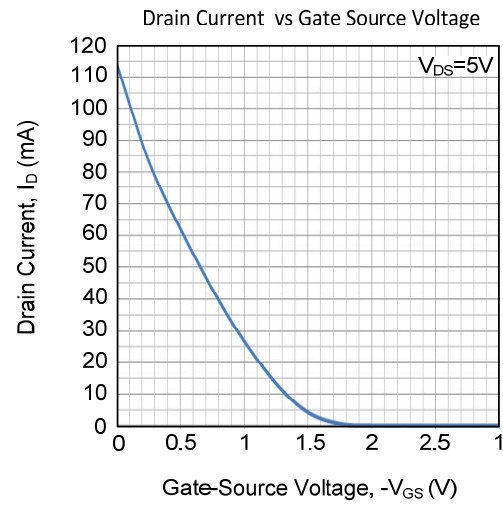
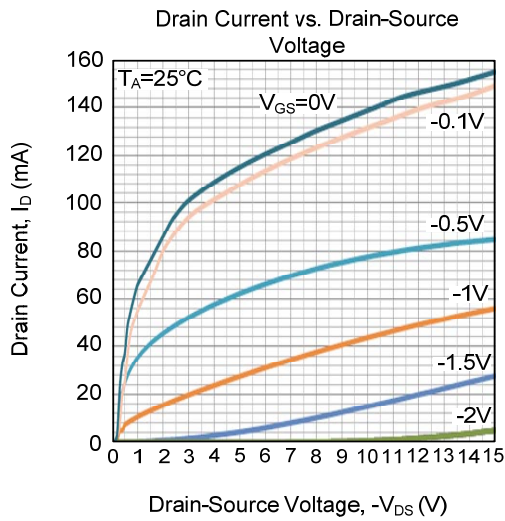
Note: Device mounted on FR-4 PCB 36mm × 18mm × 1.5mm, mounting pad for the collector lead minimum 6cm².

■ 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	$V_{(BR)GSS}$	$I_G=-10\mu\text{A}$, $V_{DS}=0$	-25			V
Gate Reverse Current	I_{GSS}	$V_{GS}=-15\text{V}$, $V_{DS}=0$			-3.0	nA
		$V_{GS}=-15\text{V}$, $V_{DS}=0$, $T_A=100^{\circ}\text{C}$			-200	nA
Gate-Source Cut-Off Voltage	$V_{GS(OFF)}$	$V_{DS}=-15\text{V}$, $I_D=-10\text{nA}$	-0.5		-4.0	V
ON CHARACTERISTICS						
Zero-Gate Voltage Drain Current (Note)	I_{DSS}	$V_{DS}=-15\text{V}$, $V_{GS}=0$	10			mA
Drain-Source On Resistance	$R_{DS(ON)}$	$V_{DS} \leq 0.1\text{V}$, $V_{GS}=0$			18	Ω
SMALL SIGNAL CHARACTERISTICS						
Drain-Gate & Source-Gate On Capacitance	$C_{dg(on)}$ $C_{sg(on)}$	$V_{DS}=0\text{V}$, $V_{GS}=0$, $f=1\text{MHz}$			85	pF
Drain-Gate & Source-Gate On Capacitance	$C_{dg(off)}$ $C_{sg(off)}$	$V_{DS}=0\text{V}$, $V_{GS}=-10$, $f=1\text{MHz}$			15	pF

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

TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.