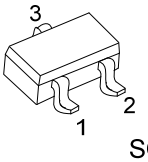
MMBFJ110

JFET

N-CHANNEL SWITCH

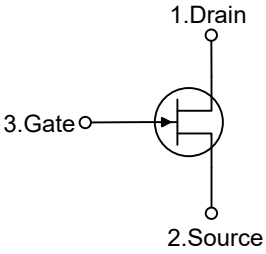


SOT-23
(JEDEC TO-236)

■ DESCRIPTION

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

■ SYMBOL



■ ORDERING INFORMATION

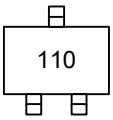
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MMBFJ110G-AE3-R	MMBFJ110G-AE3-R	SOT-23	D	S	G	Tape Reel

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

MMBFJ110G-AE3-R

(1)Packing Type	(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°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	°C
Storage Temperature	T_{STG}	-55 ~ +150	°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	°C/W

Note: Device mounted on FR-4 PCB 36mm × 18mm × 1.5mm, mounting pad for the collector lead minimum 6cm^2.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	I_G=-10μA, V_{DS}=0	-25			V
Gate Reverse Current	I_{GSS}	V_{GS}=-15V, V_{DS}=0			-3.0	nA
		V_{GS}=-15V, V_{DS}=0, T_A=100°C			-200	nA
Gate-Source Cut-Off Voltage	$V_{GS(OFF)}$	V_{DS}=-15V, I_D=-10nA	-0.5		-4.0	V
ON CHARACTERISTICS						
Zero-Gate Voltage Drain Current (Note)	I_{DSS}	V_{DS}=-15V, V_{GS}=0	10			mA
Drain-Source On Resistance	$R_{DS(ON)}$	V_{DS} ≤ 0.1V, V_{GS}=0			18	Ω
SMALL SIGNAL CHARACTERISTICS						
Drain-Gate & Source-Gate On Capacitance	$C_{dg(on)}$ $C_{sg(on)}$	V_{DS}=0V, V_{GS}=0, f=1MHz			85	pF
Drain-Gate & Source-Gate On Capacitance	$C_{dg(off)}$ $C_{sg(off)}$	V_{DS}=0V, V_{GS}=-10, f=1MHz			15	pF

Note: Pulse test: pulse width ≤ 300 μs, duty cycle ≤ 2%.

■ TYPICAL CHARACTERISTICS