

# MMBFU310

CASE 318-02/03, STYLE 10  
SOT-23 (TO-236AA/AB)

FET  
TRANSISTOR

N-CHANNEL

### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V <sub>DS</sub>	25	Vdc
Gate-Source Voltage	V <sub>GS</sub>	25	Vdc
Gate Current	I <sub>G</sub>	10	mAdc

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
*Total Device Dissipation, T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub>	350 2.8	mW mW/°C
Storage Temperature	T <sub>stg</sub>	150	°C
*Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	357	°C/W

\*Package mounted on 99.5% alumina 10 x 8 x 0.6 mm.

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
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#### OFF CHARACTERISTICS

Gate-Source Breakdown Voltage (I <sub>G</sub> = -1.0 μA, V <sub>DS</sub> = 0)	V <sub>(BR)GSS</sub>	-25	—	Vdc
Gate 1 Leakage Current (V <sub>GS</sub> = -15 V, V <sub>DS</sub> = 0)	I <sub>G1SS</sub>	—	-150	pA
Gate 2 Leakage Current (V <sub>GS</sub> = -15 V, V <sub>DS</sub> = 0, T <sub>A</sub> = 125°C)	I <sub>G2SS</sub>	—	-150	nA
Gate Source Cutoff Voltage (V <sub>DS</sub> = 10 V, I <sub>D</sub> = 1.0 nA)	V <sub>GS(off)</sub>	-2.5	-6.0	Vdc

#### ON CHARACTERISTICS

Zero-Gate-Voltage Drain (V <sub>DS</sub> = 10 V, V <sub>GS</sub> = 0)	I <sub>DSS</sub>	24	60	mA
Gate-Source Forward Voltage (I <sub>G</sub> = 10 mA, V <sub>DS</sub> = 0)	V <sub>GS(f)</sub>	—	1.0	Vdc

#### SMALL-SIGNAL CHARACTERISTICS

Forward Transfer Admittance (V <sub>DS</sub> = 10 V, I <sub>D</sub> = 10 mA, f = 1.0 kHz)	Y <sub>fs</sub>	10	18	mmhos
Output Admittance (V <sub>DS</sub> = 10 V, I <sub>D</sub> = 10 mA, f = 1.0 kHz)	Y <sub>os</sub>	—	150	μmhos
Input Capacitance (V <sub>GS</sub> = -10 V, V <sub>DS</sub> = 10 V, f = 1.0 MHz)	C <sub>iss</sub>	—	5.0	pF
Reverse Transfer Capacitance (V <sub>GS</sub> = -10 V, V <sub>DS</sub> = 10 V, f = 1.0 MHz)	C <sub>rss</sub>	—	2.5	pF