

JFET Chopper

P-Channel – Depletion

Features

- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Gate Voltage	V_{DG}	25	Vdc
Reverse Gate-Source Voltage	$V_{GS(r)}$	-25	Vdc

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

THERMAL CHARACTERISTICS

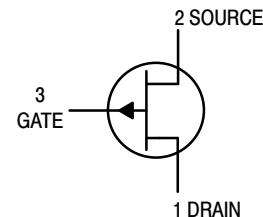
Total Device Dissipation FR-5 Board (Note 1) $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	225 1.8	mW mW/ $^\circ\text{C}$
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	556	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

1. FR-5 = $1.0 \times 0.75 \times 0.062$ in.

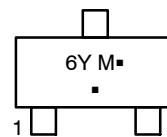


ON Semiconductor®

<http://onsemi.com>



MARKING DIAGRAM



6Y = Specific Device Code

M = Date Code*

■ = Pb-Free Package

(Note: Microdot may be in either location)

*Date Code orientation and/or overbar may vary depending upon manufacturing location.

ORDERING INFORMATION

Device	Package	Shipping [†]
MMBFJ177LT1G	SOT-23 (Pb-Free)	3000 Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

MMBFJ177LT1G

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Gate-Source Breakdown Voltage (V _{DS} = 0, I _D = 1.0 μAdc)	V _{(BR)GSS}	30	–	Vdc
Gate Reverse Current (V _{DS} = 0 Vdc, V _{GS} = 20 Vdc)	I _{GSS}	–	1.0	nAdc
Gate Source Cutoff Voltage (V _{DS} = 15 Vdc, I _D = 10 nAdc)	V _{GS(off)}	0.8	2.5	Vdc

ON CHARACTERISTICS

Zero-Gate-Voltage Drain Current (V _{GS} = 0, V _{DS} = 15 Vdc) (Note 2)	I _{DSS}	1.5	20	mAdc
Drain Cutoff Current (V _{DS} = 15 Vdc, V _{GS} = 10 Vdc)	I _{D(off)}	–	1.0	nAdc
Drain Source On Resistance (I _D = 500 μAdc)	r _{DS(on)}	–	300	Ω
Input Capacitance	V _{DS} = 0, V _{GS} = 10 Vdc f = 1.0 MHz	C _{iss}	–	11
		C _{rss}	–	5.5

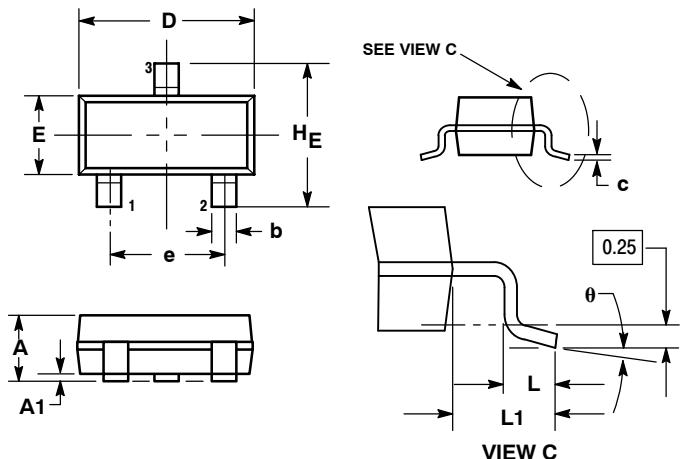
2. Pulse Test: Pulse Width < 300 μs, Duty Cycle ≤ 2%.

MMBFJ177LT1G

查询"MMBFJ177LT1-D"供应商

PACKAGE DIMENSIONS

SOT-23 (TO-236AB) CASE 318-08 ISSUE AN



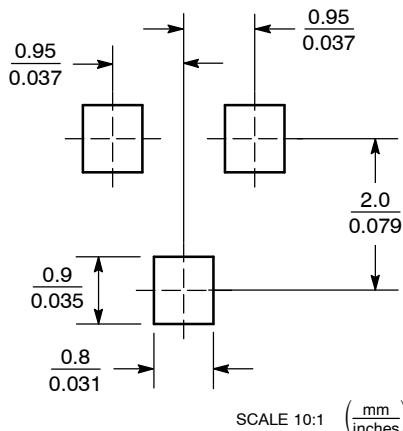
NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. 318-01 THRU -07 AND -09 OBSOLETE, NEW STANDARD 318-08.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.015	0.018	0.020
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.10	0.20	0.30	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
H_E	2.10	2.40	2.64	0.083	0.094	0.104

STYLE 10:
PIN 1. DRAIN
2. SOURCE
3. GATE

SOLDERING FOOTPRINT*



SCALE 10:1 $(\frac{\text{mm}}{\text{inches}})$

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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