

MJE3439

**SILICON  
NPN POWER TRANSISTOR**



**TO-18 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR MJE3439 is a silicon NPN power transistor designed for amplifier applications requiring high  $f_T$ .

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

	SYMBOL		UNITS
Collector-Emitter Voltage	$V_{CBO}$	450	V
Collector-Emitter Voltage	$V_{CEO}$	350	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Continuous Collector Current	$I_C$	0.3	A
Continuous Base Current	$I_B$	150	mA
Power Dissipation ( $T_C=25^\circ\text{C}$ )	$P_D$	15	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$	8.33	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

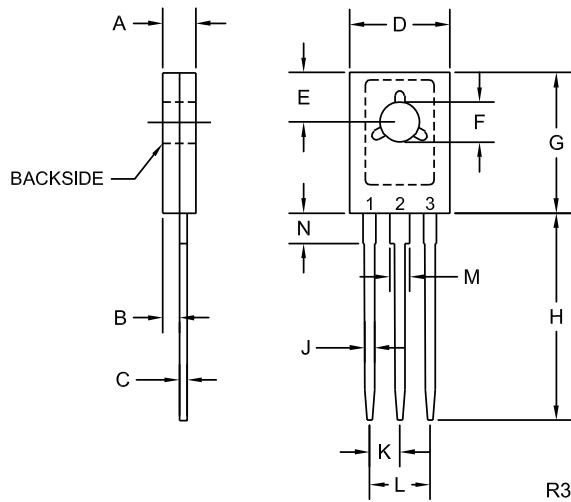
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=350\text{V}$		20	$\mu\text{A}$
$I_{CEX}$	$V_{CE}=450\text{V}, V_{BE}(\text{OFF})=1.5\text{V}$		500	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=300\text{V}$		20	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$		20	$\mu\text{A}$
$BV_{CEO}$	$I_C=5.0\text{mA}$	350		V
$V_{CE}(\text{SAT})$	$I_C=50\text{mA}, I_B=4.0\text{mA}$		0.5	V
$V_{BE}(\text{SAT})$	$I_C=50\text{mA}, I_B=4.0\text{mA}$		1.3	V
$V_{BE}(\text{ON})$	$V_{CE}=10\text{V}, I_C=50\text{mA}$		0.8	V
$h_{FE}$	$V_{CE}=10\text{V}, I_C=2.0\text{mA}$	30		
$h_{FE}$	$V_{CE}=10\text{V}, I_C=20\text{mA}$	15	200	
$f_T$	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=5.0\text{MHz}$	15		MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		10	pF

R0 (23-August 2021)

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**TO-18 CASE - MECHANICAL OUTLINE**



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.094	0.110	2.40	2.80
B	0.050		1.27	
C	0.015	0.030	0.38	0.75
D	0.291	0.335	7.40	8.50
E	0.148		3.75	
F	0.118	0.134	3.00	3.40
G	0.413	0.472	10.50	12.00
H	0.618		15.70	
J	0.024	0.035	0.62	0.90
K	0.089		2.25	
L	0.177		4.50	
M	0.045	0.055	1.14	1.40
N	0.083		2.10	

TO-18 (REV:R3)

**LEAD CODE:**

- 1) Emitter
- 2) Collector
- 3) Base

**MARKING:**

**FULL PART NUMBER**

R0 (23-August 2021)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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