

2N3773 NPN
2N6609 PNP

**COMPLEMENTARY SILICON
POWER TRANSISTORS**



TO-3 CASE



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3773, 2N6609 devices are complementary silicon power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case, designed for high power amplifier, converter, and switching regulator applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$)

Collector-Emitter Voltage
Collector-Emitter Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Peak Collector Current
Continuous Base Current
Peak Base Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

V_{CBO} 160
 V_{CEV} 160
 V_{CEO} 140
 V_{EBO} 7.0
 I_C 16
 I_{CM} 30
 I_B 4.0
 I_{BM} 15
 P_D 150
 T_J, T_{stg} -65 to +200
 Θ_{JC} 1.17

UNITS

V
V
V
V
A
A
A
A
W
 $^\circ\text{C}$
 $^\circ\text{C/W}$

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

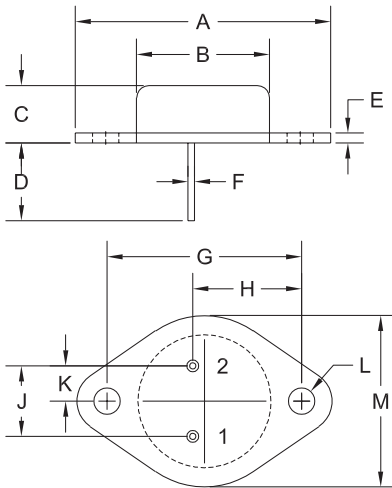
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=140\text{V}$		2.0	mA
I_{CEV}	$V_{CE}=140\text{V}, V_{BE(OFF)}=1.5\text{V}$		2.0	mA
I_{CEO}	$V_{CE}=120\text{V}$		10	mA
I_{EBO}	$V_{EB}=7.0\text{V}$		5.0	mA
BV_{CEV}	$I_C=0.1\text{A}, V_{BE(OFF)}=1.5\text{V}, R_{BE}=100\Omega$	160		V
BV_{CER}	$I_C=0.2\text{A}, R_{BE}=100\Omega$	150		V
BV_{CEO}	$I_C=0.2\text{A}$	140		V
$V_{CE(SAT)}$	$I_C=8.0\text{A}, I_B=800\text{mA}$		1.4	V
$V_{CE(SAT)}$	$I_C=16\text{A}, I_B=3.2\text{A}$		4.0	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=8.0\text{A}$		2.2	V
h_{FE}	$V_{CE}=4.0\text{V}, I_C=8.0\text{A}$ (2N3773)	15		
h_{FE}	$V_{CE}=4.0\text{V}, I_C=8.0\text{A}$ (2N6609)	15	60	
h_{FE}	$V_{CE}=4.0\text{V}, I_C=16\text{A}$	5.0		
h_{fe}	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}, f=1.0\text{kHz}$	40		
f_T	$I_C=1.0\text{A}, f=50\text{kHz}$	200		kHz
$I_{s/b}$	$V_{CE}=100\text{V}, t_p=1.0\text{s}$	1.5		A

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TO-3 CASE - MECHANICAL OUTLINE



R2

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

LEAD CODE:

- 1) Base
- 2) Emitter
- Case) Collector

MARKING:

FULL PART NUMBER

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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