

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N5770

NPN SILICON RF TRANSISTOR

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5770 type is a NPN Silicon Epitaxial Planar Transistors designed for high frequency amplifier and oscillator applications.

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

	SYMBOL		UNITS
Collector-Base Voltage	V_{CB0}	30	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Collector Current	I_C	50	mA
Power Dissipation	P_D	625	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	θ_{JA}	200	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB} = 15\text{V}$		10	nA
I_{CBO}	$V_{CB} = 15\text{V}, T_A = 150^{\circ}\text{C}$		1.0	μA
BV_{CBO}	$I_C = 1.0\mu\text{A}$	30		V
BV_{CEO}	$I_C = 3.0\text{mA}$	15		V
BV_{EBO}	$I_E = 10\mu\text{A}$	3.0		V
$V_{CE(SAT)}$	$I_C = 10\text{mA}, I_B = 1.0\text{mA}$		0.4	V
$V_{BE(SAT)}$	$I_C = 10\text{mA}, I_B = 1.0\text{mA}$		1.0	V
h_{FE}	$V_{CE} = 1.0\text{V}, I_C = 3.0\text{mA}$	20		
h_{FE}	$V_{CE} = 1.0\text{V}, I_C = 8.0\text{mA}$	50	200	
f_T	$V_{CE} = 10\text{V}, I_C = 8.0\text{mA}, f = 100\text{MHz}$	900		MHz
C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1.0\text{MHz}$		1.7	pF
C_{ib}	$V_{EB} = 0.5\text{V}, I_C = 0, f = 1.0\text{MHz}$		2.0	pF
G_{pe}	$V_{CB} = 12\text{V}, I_C = 6.0\text{mA}, f = 200\text{MHz}$	15		dB
P_O	$V_{CB} = 15\text{V}, I_C = 8.0\text{mA}, f = 500\text{MHz}$	30		mW
η	$V_{CB} = 15\text{V}, I_C = 8.0\text{mA}, f = 500\text{MHz}$	25		%
NF	$V_{CE} = 6.0\text{V}, I_C = 1.0\text{mA}, R_G = 400\Omega, f = 60\text{MHz}$		6.0	dB

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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