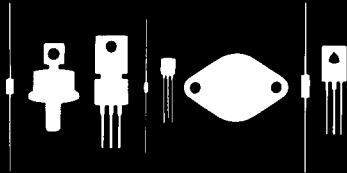


Central
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145 Adams Avenue
Hauppauge, New York 11788



2N5088
2N5089

NPN SILICON TRANSISTORS

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5088, 2N5089 series are Molded Epoxy Silicon NPN Signal Transistors designed for low-level, low noise amplifier applications.

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

	SYMBOL	2N5088	2N5089	UNIT
Collector-Base Voltage	V_{CB0}	35	30	V
Collector-Emitter Voltage	V_{CEO}	30	25	V
Emitter-Base Voltage	V_{EBO}	4.5	4.5	V
Collector Current	I_C	50	50	mA
Power Dissipation	P_D	625	625	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}	0.2	0.2	$^\circ\text{C}/\text{mW}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

SYMBOL	TEST CONDITIONS	2N5088		2N5089		UNIT
		MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=20\text{V}$		50	---		nA
I_{CB0}	$V_{CB}=15\text{V}$		---	50		nA
I_{EBO}	$V_{EB}=3.0\text{V}$		50	50		nA
I_{EBO}	$V_{EB}=4.5\text{V}$		100	100		nA
BV_{CB0}	$I_C=100\mu\text{A}$	35		30		V
BV_{CEO}	$I_C=1.0\text{mA}$	30		25		V
$V_{CE}(\text{SAT})$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.5		0.5	V
$V_{BE}(\text{ON})$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$		0.8		0.8	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	300	900	400	1200	
h_{FE}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	350		450		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	300		400		
h_{fe}	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}, f=1.0\text{kHz}$	350	1400	450	1800	
f_T	$V_{CE}=5.0\text{V}, I_C=500\mu\text{A}, f=20\text{MHz}$	50		50		MHz
C_{cb}	$V_{CB}=5.0\text{V}, I_E=0, f=100\text{kHz}$		4.0		4.0	pF
C_{eb}	$V_{BE}=0.5\text{V}, I_C=0, f=100\text{kHz}$		1.0		1.0	pF
NF	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, R_S=10\text{k}\Omega$ $f=10\text{Hz TO } 15.7\text{kHz}$		3.0		2.0	dB

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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

CONTACT US

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