

# New Jersey Semi-Conductor Products, Inc.

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2N6716 2N6717 2N6718 NPN  
2N6728 2N6729 2N6730 PNP

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## COMPLEMENTARY SILICON POWER TRANSISTORS

### JEDEC TO-237 (EBC) CASE

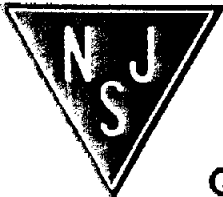
2N6716, 2N6728 Series types are Complementary Silicon Plastic Power Transistors designed for general purpose power amplifier and switching applications

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

	SYMBOL	2N6716 2N6728	2N6717 2N6729	2N6718 2N6730	UNIT
Collector-Base voltage	$V_{CB0}$	60	80	100	V
Collector-Emitter Voltage	$V_{CE0}$	60	80	100	V
Emitter-Base Voltage	$V_{EB0}$		5.0		V
Collector Current	$I_C$		2.0		A
Base Current	$I_B$		0.5		A
Power Dissipation	$P_D$		1.0		W
Power Dissipation ( $T_C=25^\circ\text{C}$ )	$P_D$		2.0		W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 TO +150			$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$		125		$^\circ\text{C/W}$
Thermal Resistance	$\theta_{JC}$		62.5		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
$I_{CB0}$	$V_{CB}=\text{Rated } V_{CB0}$		0.1	$\mu\text{A}$
$I_{EB0}$	$V_{EB}=\text{Rated } V_{EB0}$		10	$\mu\text{A}$
$BV_{CB0}$	$I_C=0.1\text{mA}$ (2N6716, 2N6728)	60		V
$BV_{CB0}$	$I_C=0.1\text{mA}$ (2N6717, 2N6729)	80		V
$BV_{CB0}$	$I_C=0.1\text{mA}$ (2N6718, 2N6730)	100		V
$BV_{CE0}$	$I_C=1.0\text{mA}$ (2N6716, 2N6728)	60		V
$BV_{CE0}$	$I_C=1.0\text{mA}$ (2N6717, 2N6729)	80		V
$BV_{CE0}$	$I_C=1.0\text{mA}$ (2N6718, 2N6730)	100		V
$BV_{EB0}$	$I_E=0.1\text{mA}$	5.0		V
$V_{CE}(\text{SAT})$	$I_C=250\text{mA}, I_B=10\text{mA}$		0.5	V
$V_{BE}(\text{ON})$	$V_{CE}=1.0\text{V}, I_C=250\text{mA}$		1.2	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=50\text{mA}$	80		
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=250\text{mA}$	50	250	
$f_T$	$V_{CE}=5.0\text{V}, I_C=200\text{mA}, f=20\text{MHz}$	50	500	MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		30	pF



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheet are current before placing orders.

**Quality Semi-Conductors**