

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

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

COMPLEMENTARY SILICON
POWER TRANSISTORS

JEDEC TO-237 (EBC) CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 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	θ_{JA}		125		$^\circ\text{C/W}$
Thermal Resistance	θ_{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	μA
I_{EB0}	$V_{EB}=\text{Rated } V_{EB0}$		10	μA
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