

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N6714 2N6715 NPN  
2N6726 2N6727 PNP

COMPLEMENTARY SILICON  
POWER TRANSISTOR

JEDEC TO-237 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6714, 2N6726 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	2N6714 2N6726	2N6715 2N6727	UNIT
Collector-Base Voltage	$V_{CB0}$	40	50	V
Collector-Emitter Voltage	$V_{CE0}$	30	40	V
Emitter-Base Voltage	$V_{EB0}$	5.0	5.0	V
Collector Current	$I_C$	2.0	2.0	A
Base Current	$I_B$	0.5	0.5	A
Power Dissipation	$P_D$	1.0	1.0	W
Power Dissipation ( $T_C=25^{\circ}\text{C}$ )	$P_D$	2.0	2.0	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 TO +150		$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$	125		$^{\circ}\text{C}/\text{W}$
Thermal Resistance	$\theta_{JC}$	62.5		$^{\circ}\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
$I_{CB0}$	$V_{CB}=\text{Rated } V_{CB0}$		0.1	$\mu\text{A}$
$I_{EB0}$	$V_{EB}=\text{Rated } V_{EB0}$		0.1	$\mu\text{A}$
$BV_{CB0}$	$I_C=1.0\text{mA}$ (2N6714, 2N6726)	40		V
$BV_{CB0}$	$I_C=1.0\text{mA}$ (2N6715, 2N6727)	50		V
$BV_{CE0}$	$I_C=10\text{mA}$ (2N6714, 2N6726)	30		V
$BV_{CE0}$	$I_C=10\text{mA}$ (2N6715, 2N6727)	40		V
$BV_{EB0}$	$I_E=1.0\text{mA}$	5.0		V
$V_{CE}(\text{SAT})$	$I_C=1.0\text{A}, I_B=0.1\text{A}$		0.5	V
$V_{BE}(\text{ON})$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$		1.2	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=0.1\text{A}$	60		
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$	50	250	
$f_T$	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=20\text{MHz}$	50	500	MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		30	pF