

CentralTM 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	θ_{JA}	125		$^{\circ}\text{C/W}$
Thermal Resistance	θ_{JC}	62.5		$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CB0}	$V_{CB}=\text{Rated } V_{CB0}$		0.1	μA
I_{EB0}	$V_{EB}=\text{Rated } V_{EB0}$		0.1	μA
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