

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

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Manufacturers of World Class Discrete Semiconductors

2N6724

2N6725

NPN SILICON DARLINGTON  
POWER TRANSISTOR

JEDEC TO-237 CASE (EBC)

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6724, 2N6725 are Silicon NPN Darlington Power Transistors designed for amplifier applications.

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

	SYMBOL	2N6724	2N6725	UNIT
Collector-Base Voltage	$V_{CB0}$	50	60	V
Collector-Emitter Voltage	$V_{CE0}$	40	50	V
Emitter-Base Voltage	$V_{EB0}$	12		V
Collector Current	$I_C$	2.0		A
Base Current	$I_B$	500		mA
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	$\theta_{JC}$	62.5		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N6724		2N6725		UNIT
		MIN	MAX	MIN	MAX	
$I_{CB0}$	$V_{CB}=30\text{V}$		0.1		-	$\mu\text{A}$
$I_{CB0}$	$V_{CB}=40\text{V}$		-		0.1	$\mu\text{A}$
$I_{EB0}$	$V_{EB}=10\text{V}$		0.1		0.1	$\mu\text{A}$
$BV_{CB0}$	$I_C=1.0\mu\text{A}$	50		60		V
$BV_{EB0}$	$I_E=10\mu\text{A}$	12		12		V
$BV_{CES}$	$I_C=1.0\text{mA}$	40		50		V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=2.0\text{mA}$		1.5		1.5	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{A}$		2.0		2.0	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=200\text{mA}$	25,000		25,000		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{A}$	4,000	40,000	4,000	40,000	
$f_T$	$V_{CE}=5.0\text{V}, I_C=200\text{mA}, f=100\text{MHz}$	1.0	10	1.0	10	MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		10		10	pF

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Datasheets for electronics components.