

2N6294 2N6295 NPN
2N6296 2N6297 PNP

**COMPLEMENTARY SILICON
DARLINGTON POWER TRANSISTORS**



www.centrasemi.com



TO-66 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6294, 2N6296 series devices are complementary silicon Darlington power transistors, manufactured by the epitaxial base process, designed for high gain amplifier and medium speed switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Peak Collector Current
Continuous Base Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL	2N6294	2N6295	UNITS
	2N6296	2N6297	
V_{CBO}	60	80	V
V_{CEO}	60	80	V
V_{EBO}		5.0	V
I_C		4.0	A
I_{CM}		8.0	A
I_B		80	mA
P_D		50	W
T_J, T_{stg}		-65 to +200	$^\circ\text{C}$
θ_{JC}		3.5	$^\circ\text{C/W}$

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

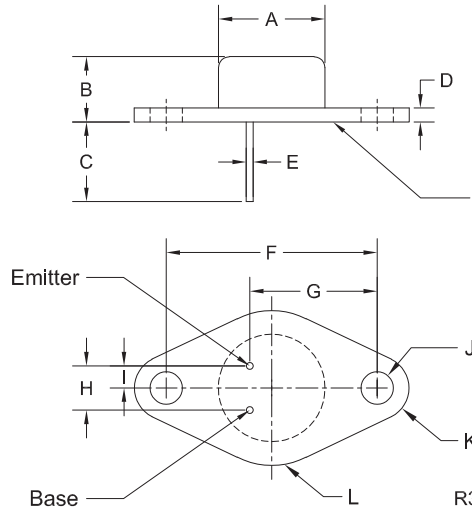
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{EB}=1.5\text{V}$		0.5	mA
I_{CEV}	$V_{CE}=\text{Rated } V_{CEO}, V_{EB}=1.5\text{V}, T_C=150^\circ\text{C}$		5.0	mA
I_{CEO}	$V_{CE}=\frac{1}{2}\text{Rated } V_{CEO}$		0.5	mA
I_{EBO}	$V_{EB}=5.0\text{V}$		2.0	mA
BV_{CEO}	$I_C=50\text{mA}, (2\text{N}6294, 2\text{N}6296)$	60		V
BV_{CEO}	$I_C=50\text{mA}, (2\text{N}6295, 2\text{N}6297)$	80		V
$V_{CE(SAT)}$	$I_C=2.0\text{A}, I_B=8.0\text{mA}$		2.0	V
$V_{CE(SAT)}$	$I_C=4.0\text{A}, I_B=40\text{mA}$		3.0	V
$V_{BE(SAT)}$	$I_C=4.0\text{A}, I_B=40\text{mA}$		4.0	V
$V_{BE(ON)}$	$V_{CE}=3.0\text{V}, I_C=2.0\text{A}$		2.8	V
h_{FE}	$V_{CE}=3.0\text{V}, I_C=2.0\text{A}$	750	18K	
h_{FE}	$V_{CE}=3.0\text{V}, I_C=4.0\text{A}$	100		
h_{fe}	$V_{CE}=3.0\text{V}, I_C=1.5\text{A}, f=1.0\text{kHz}$	300		
f_T	$V_{CE}=3.0\text{V}, I_C=1.5\text{A}, f=1.0\text{MHz}$	4.0		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$ (NPN types)		120	pF
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$ (PNP types)		200	pF

2N6294 2N6295 NPN
 2N6296 2N6297 PNP



**COMPLEMENTARY SILICON
 DARLINGTON POWER TRANSISTORS**

TO-66 CASE - MECHANICAL OUTLINE



Seating Plane:
 The seating plane must be within 0.001" concave to 0.004" convex within 0.600" diameter from the center of the device.

**MARKING:
 FULL PART NUMBER**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.470	0.500	11.94	12.70
B	0.250	0.340	6.35	8.64
C	0.360	-	9.14	-
D	0.050	0.075	1.27	1.91
E (DIA)	0.028	0.034	0.71	0.86
F	0.956	0.964	24.28	24.48
G	0.570	0.590	14.48	14.99
H	0.190	0.210	4.83	5.33
I	0.093	0.107	2.36	2.72
J (DIA)	0.142	0.152	3.61	3.86
K (RAD)	0.141		3.58	
L (RAD)	0.345		8.76	

TO-66 (REV:R3)

R2 (2-September 2014)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Darlington Transistors](#) category:

Click to view products by [Central Semiconductor](#) manufacturer:

Other Similar products are found below :

[281287X](#) [SMMBT6427LT1G](#) [2N7371](#) [BDV64B](#) [JANTXV2N6287](#) [028710A](#) [SMMBTA64LT1G](#) [2N6350](#) [2SB1214-TL-E](#)
[SMMBTA14LT1G](#) [SBSP52T1G](#) [NJVMJD117T4G](#) [Jantx2N6058](#) [2N6353](#) [LB1205-L-E](#) [500-00005](#) [2N6053](#) [NJVMJD112G](#) [Jan2N6350](#)
[Jantx2N6352](#) [Jantx2N6350](#) [BULN2803LVS](#) [ULN2001N](#) [2SB1383](#) [2SB1560](#) [2SB852KT146B](#) [TIP112TU](#) [TIP122TU](#) [BCV27](#) [MMBTA13-](#)
[TP](#) [MMBTA14-TP](#) [MMSTA28T146](#) [BSP50H6327XTSA1](#) [KSH122TF](#) [NTE2557](#) [NJVNJD35N04T4G](#) [TIP115](#) [MPSA29-D26Z](#) [MJD127T4](#)
[FJB102TM](#) [BCV26E6327HTSA1](#) [BCV46E6327HTSA1](#) [BCV47E6327HTSA1](#) [BSP61H6327XTSA1](#) [BU941ZPFI](#) [2SB1316TL](#) [2SD1980TL](#)
[NTE2350](#) [NTE245](#) [NTE246](#)