

2N6282 2N6283 2N6284 NPN
2N6285 2N6286 2N6287 PNP

**COMPLEMENTARY SILICON
DARLINGTON POWER
TRANSISTORS**



TO-3 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6282, 2N6285 series devices are complementary silicon monolithic Darlington transistors, manufactured by the epitaxial base process, designed for general purpose high current, high gain amplifier and 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	2N6282	2N6283	2N6284	UNITS
	2N6285	2N6286	2N6287	
V_{CB0}	60	80	100	V
V_{CEO}	60	80	100	V
V_{EBO}		5.0		V
I_C		20		A
I_{CM}		40		A
I_B		0.5		A
P_D		160		W
T_J, T_{stg}		-65 to +200		$^\circ\text{C}$
θ_{JC}		1.09		$^\circ\text{C/W}$

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

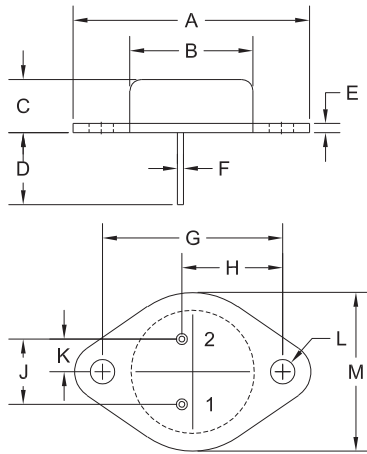
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CEX}	$V_{CE}=\text{Rated } V_{CEO}, V_{EB}=1.5\text{V}$		0.5	mA
I_{CEX}	$V_{CE}=\text{Rated } V_{CEO}, V_{EB}=1.5\text{V}, T_C=150^\circ\text{C}$		5.0	mA
I_{CEO}	$V_{CE}=\frac{1}{2}\text{Rated } V_{CEO}$		1.0	mA
I_{EBO}	$V_{EB}=5.0\text{V}$		2.0	mA
BV_{CEO}	$I_C=100\text{mA}, (2\text{N}6282, 2\text{N}6285)$	60		V
BV_{CEO}	$I_C=100\text{mA}, (2\text{N}6283, 2\text{N}6286)$	80		V
BV_{CEO}	$I_C=100\text{mA}, (2\text{N}6284, 2\text{N}6287)$	100		V
$V_{CE(SAT)}$	$I_C=10\text{A}, I_B=40\text{mA}$		2.0	V
$V_{CE(SAT)}$	$I_C=20\text{A}, I_B=200\text{mA}$		3.0	V
$V_{BE(SAT)}$	$I_C=20\text{A}, I_B=200\text{mA}$		4.0	V
$V_{BE(ON)}$	$V_{CE}=3.0\text{V}, I_C=10\text{A}$		2.8	V
h_{FE}	$V_{CE}=3.0\text{V}, I_C=10\text{A}$	750	18K	
h_{FE}	$V_{CE}=3.0\text{V}, I_C=20\text{A}$	100		
h_{fe}	$V_{CE}=3.0\text{V}, I_C=10\text{A}, f=1.0\text{kHz}$	300		
f_T	$V_{CE}=3.0\text{V}, I_C=10\text{A}, f=1.0\text{MHz}$	4.0		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$ (NPN types)		400	pF
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$ (PNP types)		600	pF

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TO-3 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

R2

LEAD CODE:

- 1) Base
- 2) Emitter
- Case) Collector

MARKING:

FULL PART NUMBER

R1 (4-February 2014)