

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N6576
2N6577
2N6578

NPN SILICON POWER
DARLINGTON TRANSISTOR

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6576 series types are NPN Silicon Power Darlington Transistors designed for general purpose switching applications.

MAXIMUM RATINGS (T_C=25°C)

	SYMBOL	2N6576	2N6577	2N6578	UNITS
Collector-Base Voltage	V _{CBO}	60	90	120	V
Collector-Emitter Voltage	V _{CEO}	60	90	120	V
Emitter-Base Voltage	V _{EBO}		7.0		V
Continuous Collector Current	I _C		15		A
Peak Collector Current	I _{CM}		30		A
Continuous Base Current	I _B		250		mA
Peak Base Current	I _{BM}		500		mA
Continuous Emitter Current	I _E		15.25		A
Peak Emitter Current	I _{EM}		30.50		A
Power Dissipation	P _D		120		W
Operating and Storage Junction Temperature	T _J , T _{stg}		-65 to +200		°C
Thermal Resistance	θ _{JC}		1.46		°C/W

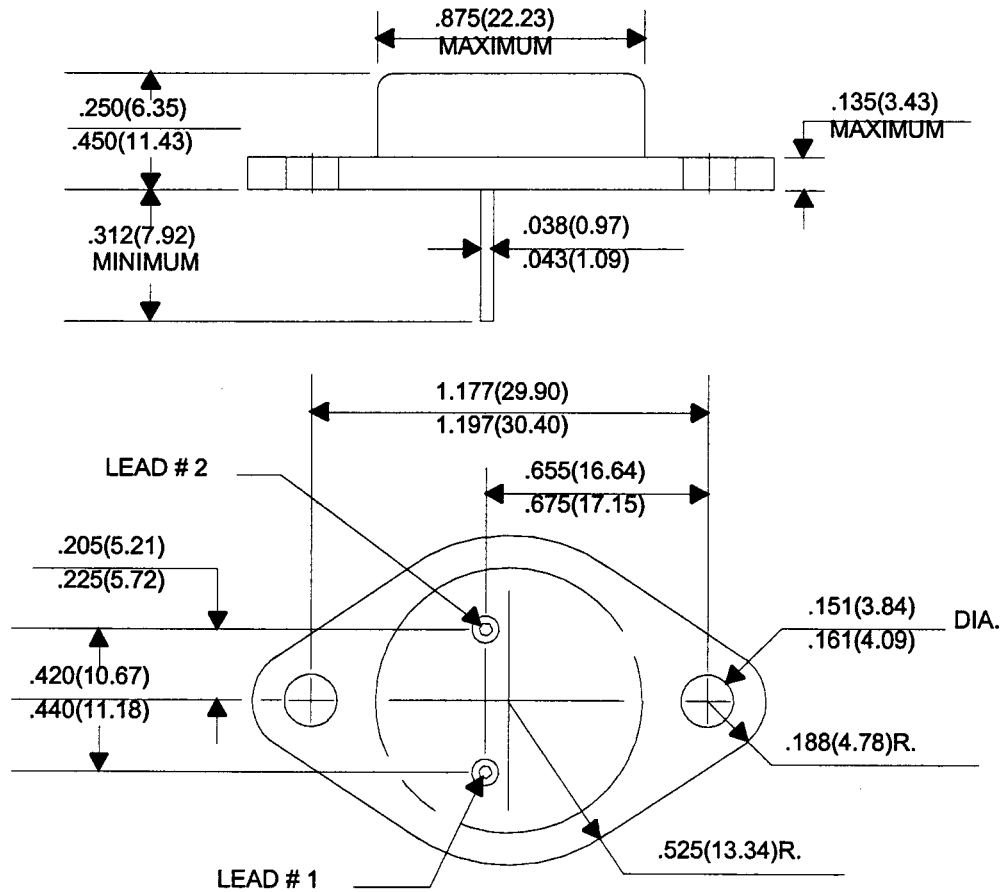
ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =Rated V _{CBO}		500	μA
I _{CEV}	V _{CEV} =Rated V _{CEO} , V _{BE(off)} =1.5V		5.0	mA
I _{CER}	V _{CER} = Rated V _{CEO} , R _{BE} =10kΩ, T _C =150°C		5.0	mA
I _{CEO}	V _{CE} = Rated V _{CEO}		1.0	mA
BV _{CEO}	I _C =200mA (2N6576)	60		V
BV _{CEO}	I _C =200mA (2N6577)	90		V
BV _{CEO}	I _C =200mA (2N6578)	120		V
V _{CE(SAT)}	I _C =10A, I _B =100mA		2.8	V
V _{CE(SAT)}	I _C =15A, I _B =150mA		4.0	V
V _{BE(SAT)}	I _C =10A, I _B =100mA		3.5	V
V _{BE(SAT)}	I _C =15A, I _B =150mA		4.5	V
h _{FE}	V _{CE} =3.0V, I _C =400mA	200		
h _{FE}	V _{CE} =3.0V, I _C =4.0A	2000	20000	
h _{FE}	V _{CE} =3.0V, I _C =10A	500	5000	
h _{FE}	V _{CE} =4.0V, I _C =15A	100		

ELECTRICAL CHARACTERISTICS (CONTINUED)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
V_F	$I_{EC}=15A$		4.5	V
$ h_{hel} $	$V_{CE}=3.0V, I_C=3.0A, f=1.0MHz$	10	200	
t_d	$V_{CC}=30V, I_C=10A, I_{B1}=100mA$		0.15	μs
t_r	$V_{CC}=30V, I_C=10A, I_{B1}=100mA$		1.0	μs
t_s	$V_{CC}=30V, I_C=10A, I_{B1}=I_{B2}=100mA$		2.0	μs
t_f	$V_{CC}=30V, I_C=10A, I_{B1}=I_{B2}=100mA$		7.0	μs

TO-3 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Lead Code:

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

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