

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N6383
2N6384
2N6385

NPN SILICON POWER
DARLINGTON TRANSISTOR

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6383 series types are NPN Silicon Power Darlington Transistors designed for power switching and amplifier applications.

MAXIMUM RATINGS (T_C=25°C)

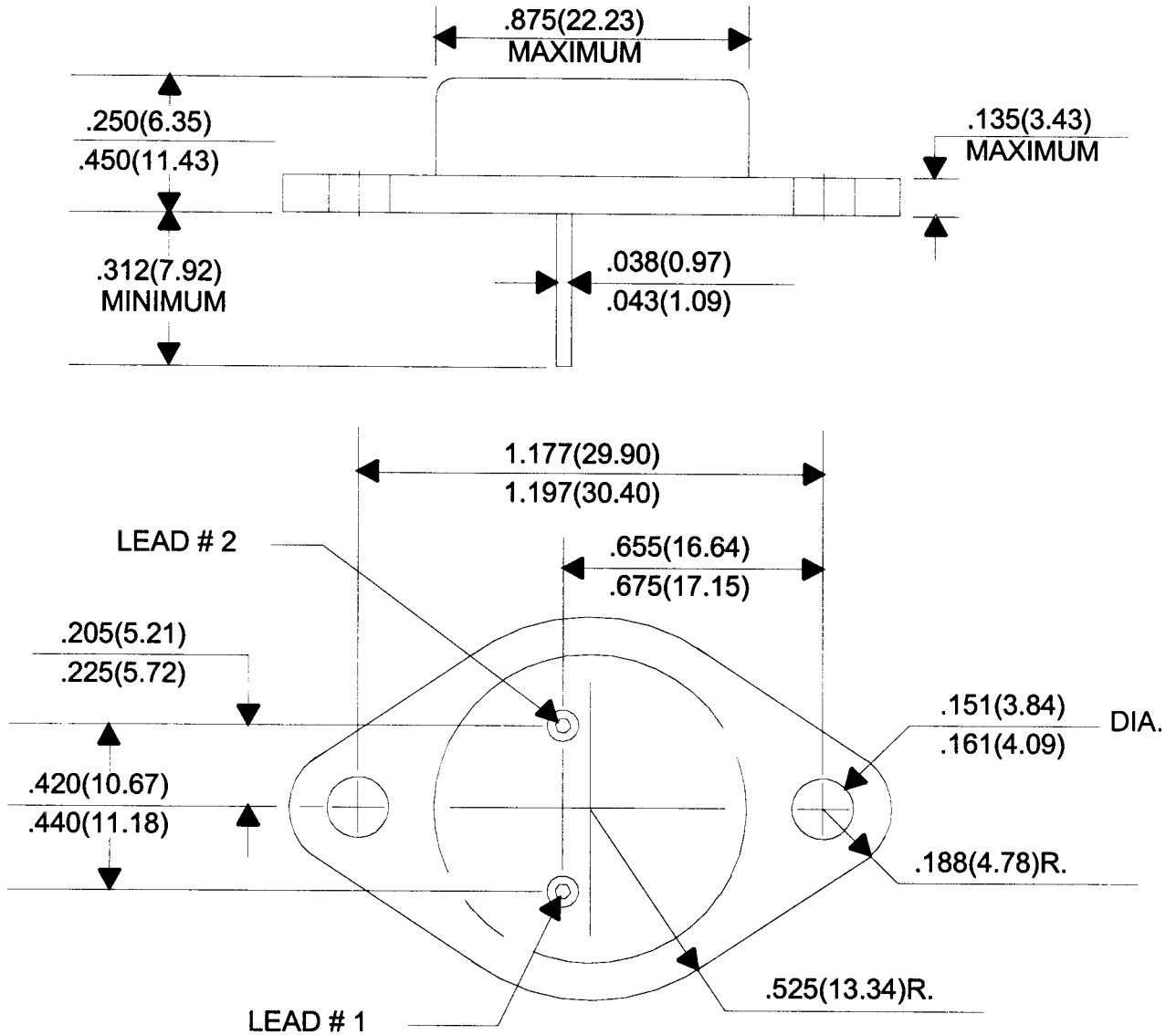
	SYMBOL	2N6383	2N6384	2N6385	UNITS
Collector-Base Voltage	V _{CBO}	40	60	80	V
Collector-Emitter Voltage	V _{CEX}	40	60	80	V
Collector-Emitter Voltage	V _{CEO}	40	60	80	V
Emitter-Base Voltage	V _{EBO}		5.0		V
Continuous Collector Current	I _C		10		A
Peak Collector Current	I _{CM}		15		A
Continuous Base Current	I _B		250		mA
Power Dissipation	P _D		100		W
Operating and Storage					
Junction Temperature	T _J , T _{stg}		-65 to +200		°C
Thermal Resistance	θ _{JC}		1.75		°C/W

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

SYMBOL	TEST CONDITIONS	2N6383		2N6384		2N6385		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
I _{CEV}	V _{CEV} =Rated V _{CEO} , V _{BE(off)} =1.5V		0.3		0.3		0.3	mA
I _{CEV}	V _{CEV} =Rated V _{CEO} , V _{BE(off)} =1.5V, T _C =150°C		3.0		3.0		3.0	mA
I _{CEO}	V _{CE} = Rated V _{CEO}		1.0		1.0		1.0	mA
I _{EBO}	V _{EB} =5.0V		10		10		10	mA
BV _{CEV}	I _C =100mA, V _{BE(off)} =1.5V		40		60		80	V
BV _{CER}	I _C =100mA, R _{BE} =100Ω		40		60		80	V
BV _{CEO}	I _C =100mA		40		60		80	V
V _{CE(SAT)}	I _C =5.0A, I _B =10mA		2.0		2.0		2.0	V
V _{CE(SAT)}	I _C =10A, I _B =100mA		3.0		3.0		3.0	V
V _{BE(ON)}	V _{CE} =3.0V, I _C =5.0A		2.8		2.8		2.8	V
V _{BE(ON)}	V _{CE} =3.0V, I _C =10A		4.5		4.5		4.5	V
h _{FE}	V _{CE} =3.0V, I _C =5.0A	1K	20K	1K	20K	1K	20K	
h _{FE}	V _{CE} =3.0V, I _C =10A	100		100		100		
V _F	I _F =10A		4.0		4.0		4.0	V
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		200		200		200	pF
h _{hel}	V _{CE} =5.0V, I _C =1.0A, f=1.0MHz	20		20		20		
h _{he}	V _{CE} =5.0V, I _C =1.0A, f=1.0kHz	1K		1K		1K		

(SEE REVERSE SIDE)

TO-3 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Lead Code:

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

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