

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

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

COMPLEMENTARY SILICON DARLINGTON
POWER TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6282 series types are complementary silicon monolithic darlington transistors manufactured by the epitaxial base process mounted in a hermetically sealed metal package designed for high current, general purpose amplifier and switching applications.

MAXIMUM RATINGS (T_C=25°C)

	SYMBOL	2N6282 2N6285	2N6283 2N6286	2N6284 2N6287	UNIT
Collector-Base Voltage	V _{CB0}	60	80	100	V
Collector-Emitter Voltage	V _{CE0}	60	80	100	V
Emitter-Base Voltage	V _{EB0}	5.0	5.0	5.0	V
Collector Current	I _C		20		A
Collector Current (Peak)	I _{CM}		40		A
Base Current	I _B		0.5		A
Power Dissipation	P _D		160		W
Operating and Storage Junction Temperature	T _J , T _{STG}		-65 TO +200		°C
Thermal Resistance	θ _{JC}		1.09		°C/W

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

SYMBOL	TEST CONDITIONS	2N6282 2N6285		2N6283 2N6286		2N6284 2N6287		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I _{CEX}	V _{CE} =Rated V _{CB0} , V _{BE} (OFF)=1.5V		0.5		0.5		0.5	mA
I _{CEX}	V _{CE} =Rated V _{CB0} , V _{BE} (OFF)=1.5V, T _C =150°C		5.0		5.0		5.0	mA
I _{CEO}	V _{CE} =½ Rated V _{CE0}		1.0		1.0		1.0	mA
I _{EBO}	V _{BE} =5.0V		2.0		2.0		2.0	mA
BV _{CEO}	I _C =100mA	60		80		100		V
V _{CE} (SAT)	I _C =10A, I _B =40mA		2.0		2.0		2.0	V
V _{CE} (SAT)	I _C =20A, I _B =200mA		3.0		3.0		3.0	V
V _{BE} (SAT)	I _C =20A, I _B =200mA		4.0		4.0		4.0	V
V _{BE} (ON)	V _{CE} =3.0V, I _C =10A		2.8		2.8		2.8	V
h _{FE}	V _{CE} =3.0V, I _C =10A	750	18,000	750	18,000	750	18,000	
h _{FE}	V _{CE} =3.0V, I _C =20A	100		100		100		
h _{fe}	V _{CE} =3.0V, I _C =10A, f=1.0kHz	300		300		300		
f _T	V _{CE} =3.0V, I _C =10A, f=1.0MHz	4.0		4.0		4.0		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=0.1MHz (NPN types)		400		400		400	pF
C _{ob}	V _{CB} =10V, I _E =0, f=0.1MHz (PNP types)		600		600		600	pF