Data Sheet

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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 (TC=25°C)

	SYMBOL	2N6282 2N6285	2N6283 2N6286	2N6284 2N6287	UNIT
Collector-Base Voltage	V_{CBO}	60	80	100	V
Collector-Emitter Voltage	V_{CEO}	60	80	100	V
Emitter-Base Voltage	V_{EBO}	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 (TC=25°C unless otherwise noted)

		2N6282 2N6285		2N6283 2N6286		2N6284 2N6287		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	UNIT
I_{CEX}	V_{CE}=Rated V_{CBO}, $V_{BE(OFF)}$=1.5V		0.5		0.5		0.5	mA
I_{CEX}	V_{CE}=Rated V_{CBO}, $V_{BE(OFF)}$=1.5V, T_C=150°C		5.0		5.0		5.0	mA
I_{CEO}	V_{CE}=½ Rated V_{CEO}		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