Data Sheet

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Manufacturers of World Class Discrete Semiconductors

2N6548
2N6549

NPN SILICON DARLINGTON TRANSISTORS

JEDEC TO-202 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6548 series types are silicon NPN monolithic darlington transistors designed for amplifier and driver applications where high gain at a high collector current is important.

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CES}	40	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	12	V
Collector Current	I_C	2.0	A
Base Current	I_B	100	mA
Power Dissipation	P_D	2.0	W
Power Dissipation (T_C=25°C)	P_D	10	W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +150	°C
Thermal Resistance	Θ_{JA}	62.5	°C/W
Thermal Resistance	Θ_{JC}	12.5	°C/W

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

SYMBOL	TEST CONDITIONS	2N6548 MIN	2N6548 MAX	2N6549 MIN	2N6549 MAX	UNIT
I_{CBO}	V_{CB}=30V		100		100	nA
I_{EBO}	V_{EB}=10V		100		100	nA
BV_{CBO}	I_C=100μA	50		50		V
BV_{CES}	I_C=100μA	40		40		V
BV_{EBO}	I_E=10μA	12		12		V
$V_{CE(SAT)}$	I_C=1.0A, I_B=2.0mA		1.5		1.5	V
$V_{CE(SAT)}$	I_C=2.0A, I_B=4.0mA		2.0		2.0	V
$V_{BE(SAT)}$	I_C=1.0A, I_B=2.0mA		2.0		2.0	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=1.0A		2.0		2.0	V
h_{FE}	V_{CE}=5.0V, I_C=200mA	25,000	150,000	15,000	150,000	
h_{FE}	V_{CE}=5.0V, I_C=500mA	15,000		10,000		
h_{FE}	V_{CE}=5.0V, I_C=1.0A	5,000		3,000		
h_{fe}	V_{CE}=5.0V, I_C=50mA, f=1.0kHz	20,000		15,000		
f_T	V_{CE}=5.0V, I_C=200mA, f=100MHz	100		100		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		7.0		7.0	pF