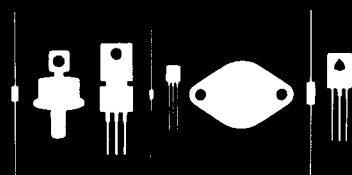


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145 Adams Avenue  
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MJE700T THRU MJE703T PNP  
MJE800T THRU MJE803T NPN

SILICON POWER DARLINGTON  
COMPLEMENTARY TRANSISTORS

JEDEC TO-220AB CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR MJE700T, MJE800T Series types are Medium Power Complementary Silicon Darlington Transistors designed for audio amplifier applications as complementary output devices.

## MAXIMUM RATINGS (T<sub>C</sub>=25°C)

	SYMBOL	MJE700T	MJE702T	UNIT
		MJE701T	MJE703T	
		MJE800T	MJE802T	
		MJE801T	MJE803T	
Collector-Base Voltage	V <sub>CB0</sub>	60	80	V
Collector-Emitter Voltage	V <sub>CEO</sub>	60	80	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	5.0	V
Collector Current	I <sub>C</sub>	4.0	4.0	A
Base Current	I <sub>B</sub>	0.1	0.1	A
Power Dissipation	P <sub>D</sub>	50	50	W
Operating and Storage	T <sub>J</sub> , T <sub>stg</sub>	-55 TO +150		°C
Junction Temperature	θ <sub>JC</sub>	2.5	2.5	°C/W

## ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN		MAX		UNIT
I <sub>CB0</sub>	V <sub>CB</sub> =Rated V <sub>CEO</sub>			0.2		mA
I <sub>CB0</sub>	V <sub>CB</sub> =Rated V <sub>CEO</sub> , T <sub>C</sub> =100°C			2.0		mA
I <sub>CEO</sub>	V <sub>CE</sub> =½ Rated V <sub>CEO</sub>			500		µA
I <sub>EBO</sub>	V <sub>BE</sub> =5.0V			2.0		mA
BV <sub>CEO</sub>	I <sub>C</sub> =50mA, (MJE700, 701, 800, 801 ONLY)	60				V
BV <sub>CEO</sub>	I <sub>C</sub> =50mA, (MJE702, 703, 802, 803 ONLY)	80				V
			MJE700T	MJE701T		
			MJE702T	MJE703T		
			MJE800T	MJE801T		
			MJE802T	MJE803T		
		MIN	MAX	MIN	MAX	UNIT
V <sub>CE</sub> (SAT)	I <sub>C</sub> =1.5A, I <sub>B</sub> =30mA		2.5	-		V
V <sub>CE</sub> (SAT)	I <sub>C</sub> =2.0A, I <sub>B</sub> =40mA		-	2.8		V
V <sub>BE</sub> (ON)	V <sub>CE</sub> =3.0V, I <sub>C</sub> =1.5A		2.5	-		V
V <sub>BE</sub> (ON)	V <sub>CE</sub> =3.0V, I <sub>C</sub> =2.0A		-	2.5		V
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =1.5A	750		-		-
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =2.0A	-		750		-
h <sub>fe</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =1.5A, f=1.0MHz	1.0		1.0		-