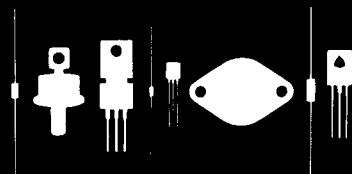


**Central
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145 Adams Avenue
Hauppauge, New York 11788



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 ($T_C=25^\circ\text{C}$)

	SYMBOL	MJE700T MJE701T MJE800T MJE801T	MJE702T MJE703T MJE802T MJE803T	UNIT
Collector-Base Voltage	V_{CB0}	60	80	V
Collector-Emitter Voltage	V_{CE0}	60	80	V
Emitter-Base Voltage	V_{EB0}	5.0	5.0	V
Collector Current	I_C	4.0	4.0	A
Base Current	I_B	0.1	0.1	A
Power Dissipation	P_D	50	50	W
Operating and Storage				
Junction Temperature	T_J, T_{stg}	-55 TO +150		$^\circ\text{C}$
Thermal Resistance	θ_{JC}	2.5	2.5	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT		
I_{CBO}	$V_{CB}=\text{Rated } V_{CEO}$		0.2	mA		
I_{CBO}	$V_{CB}=\text{Rated } V_{CEO}, T_C=100^{\circ}\text{C}$		2.0	mA		
I_{CEO}	$V_{CE}=\frac{1}{2} \text{ Rated } V_{CEO}$		500	μA		
I_{EBO}	$V_{BE}=5.0\text{V}$		2.0	mA		
BV_{CEO}	$I_C=50\text{mA}, (\text{MJE700}, 701, 800, 801 \text{ ONLY})$	60		V		
BV_{CEO}	$I_C=50\text{mA}, (\text{MJE702}, 703, 802, 803 \text{ ONLY})$	80		V		
		MJE700T MJE702T MJE800T MJE802T	MJE701T MJE703T MJE801T MJE803T			
		MIN	MAX	MIN	MAX	UNIT
$V_{CE}(\text{SAT})$	$I_C=1.5\text{A}, I_B=30\text{mA}$		2.5	-		V
$V_{CE}(\text{SAT})$	$I_C=2.0\text{A}, I_B=40\text{mA}$		-	2.8		V
$V_{BE}(\text{ON})$	$V_{CE}=3.0\text{V}, I_C=1.5\text{A}$		2.5	-		V
$V_{BE}(\text{ON})$	$V_{CE}=3.0\text{V}, I_C=2.0\text{A}$		-	2.5		V
h_{FE}	$V_{CE}=3.0\text{V}, I_C=1.5\text{A}$	750		-		-
h_{FE}	$V_{CE}=3.0\text{V}, I_C=2.0\text{A}$	-		750		-
h_{fe}	$V_{CE}=3.0\text{V}, I_C=1.5\text{A}, f=1.0\text{MHz}$	1.0		1.0		-

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