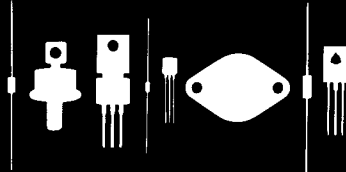


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145 Adams Avenue
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MJ2500 MJ2501 PNP
MJ3000 MJ3001 NPN

SILICON COMPLEMENTARY TRANSISTORS
POWER DARLINGTON
10 AMPERES, 60-80 VOLTS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MJ2500, MJ3000 Series are medium-power Complementary Silicon Darlington Transistors designed for general purpose amplifier applications as complementary output devices.

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

	SYMBOL	MJ2500 MJ3000	MJ2501 MJ3001	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	10	10	A
Base Current	I_B	0.2	0.2	A
Power Dissipation	P_D	150	150	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-55 TO +200		$^\circ\text{C}$
Thermal Resistance, Junction TO Case	θ_{JC}	1.17		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MJ2500 MJ3000		MJ2501 MJ3001		UNIT
		MIN	MAX	MIN	MAX	
I_{CER}	$V_{CE}=\text{Rated}, R_{BE}=1,000\Omega$		1.0		1.0	mA
I_{CER}	$V_{CE}=\text{Rated}, R_{BE}=1,000\Omega, T_C=150^\circ\text{C}$		5.0		5.0	mA
I_{CEO}	$V_{CE}=\frac{1}{2} \times \text{Rated } V_{CE}$		1.0		1.0	mA
I_{EBO}	$V_{EB}=5.0\text{V}$		2.0		2.0	mA
BV_{CEO}	$I_C=100\text{mA}$	60		80		V
$V_{CE}(\text{SAT})$	$I_C=5.0\text{A}, I_B=20\text{mA}$		2.0		2.0	V
$V_{CE}(\text{SAT})$	$I_C=10\text{A}, I_B=50\text{mA}$		4.0		4.0	V
$V_{BE}(\text{on})$	$V_{CE}=3.0\text{V}, I_C=5.0\text{A}$		3.0		3.0	V
h_{fe}	$V_{CE}=3.0\text{V}, I_C=5.0\text{A}$	1000		1000		-