Central
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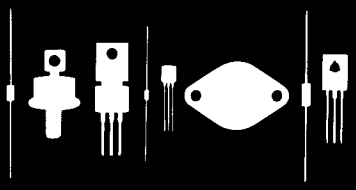

MJ2500 MJ2501 PNP
MJ3000 MJ3001 NPN

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°C)

	SYMBOL	MJ2500 MJ3000	MJ2501 MJ3001	UNIT
Collector-Base Voltage	V_{CBO}	60	80	V
Collector-Emitter Voltage	V_{CEO}	60	80	V
Emitter-Base Voltage	V_{EBO}	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		°C
Thermal Resistance, Junction TO Case	θ_{JC}	1.17		°C/W

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

SYMBOL	TEST CONDITIONS	MJ2500 MJ3000 MIN	MJ2500 MJ3000 MAX	MJ2501 MJ3001 MIN	MJ2501 MJ3001 MAX	UNIT
						mA
I_{CER}	V_{CE}=Rated, R_{BE}=1,000Ω		1.0		1.0	mA
I_{CER}	V_{CE}=Rated, R_{BE}=1,000Ω, T_C=150°C		5.0		5.0	mA
I_{CEO}	V_{CE}=½XRated V_{CE}		1.0		1.0	mA
I_{EBO}	V_{EB}=5.0V		2.0		2.0	nA
BV_{CEO}	I_C=100mA	60		80		V
$V_{CE(SAT)}$	I_C=5.0A, I_B=20mA		2.0		2.0	V
$V_{CE(SAT)}$	I_C=10A, I_B=50mA		4.0		4.0	V
$V_{BE(on)}$	V_{CE}=3.0V, I_C=5.0A		3.0		3.0	V
hfe	V_{CE}=3.0V, I_C=5.0A	1000		1000		-