

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

MJE2955T PNP
MJE3055T NPN

COMPLEMENTARY SILICON
PLASTIC POWER TRANSISTORS

JEDEC TO-220AB CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MJE2955T, MJE3055T are complementary Silicon Plastic Power Transistors designed for high current amplifier and switching applications.

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

	<u>SYMBOL</u>		<u>UNIT</u>
Collector-Base Voltage	V_{CB0}	70	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	10	A
Base Current	I_B	6.0	A
Power Dissipation	P_D	75	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +150	$^\circ\text{C}$
Thermal Resistance	θ_{JC}	1.67	$^\circ\text{C}/\text{W}$

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

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNIT</u>
I_{CB0}	$V_{CB}=70\text{V}$		1.0	mA
I_{CB0}	$V_{CB}=70\text{V}, T_C=150^\circ\text{C}$		10	mA
I_{CEV}	$V_{CE}=70\text{V}, V_{EB}(\text{OFF})=1.5\text{V}$		1.0	mA
I_{CEV}	$V_{CE}=70\text{V}, V_{EB}(\text{OFF})=1.5\text{V}, T_C=150^\circ\text{C}$		5.0	mA
I_{CEO}	$V_{CE}=30\text{V}$		700	μA
I_{EBO}	$V_{BE}=5.0\text{V}$		5.0	mA
h_{FE}	$V_{CE}=4.0\text{V}, I_C=4.0\text{A}$	20	100	
h_{FE}	$V_{CE}=4.0\text{V}, I_C=10\text{A}$	5.0		
$V_{CE}(\text{SAT})$	$I_C=4.0\text{A}, I_B=0.4\text{A}$		1.1	V
$V_{CE}(\text{SAT})$	$I_C=10\text{A}, I_B=3.3\text{A}$		8.0	V
$V_{BE}(\text{ON})$	$V_{CE}=4.0\text{V}, I_C=4.0\text{A}$		1.8	V
f_T	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=500\text{kHz}$	2.0		MHz