

# Central<sup>TM</sup> Semiconductor Corp.

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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	$V_{CE0}$	60	V
Emitter-Base Voltage	$V_{EB0}$	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	$\theta_{JC}$	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
$I_{CE0}$	$V_{CE}=30\text{V}$		700	$\mu\text{A}$
$I_{EB0}$	$V_{BE}=5.0\text{V}$		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