Data Sheet

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Manufacturers of World Class Discrete Semiconductors

2N3055 NPN
MJ2955 PNP

COMPLEMENTARY SILICON POWER TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3055, MJ2955 types are complementary silicon power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case designed for general purpose switching and amplifier applications.

MAXIMUM RATINGS (T_C=25°C)

	SYMBOL		UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CER}	70	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Collector Current	I_C	15	A
Base Current	I_B	7.0	A
Power Dissipation	P_D	115	W
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 TO +200	°C
Thermal Resistance	Θ_{JC}	1.52	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CEV}	V_{CE}=100V, $V_{EB(OFF)}$=1.5V		1.0	mA
I_{CEV}	V_{CE}=100V, $V_{EB(OFF)}$=1.5V, T_C=150°C		5.0	mA
I_{CEO}	V_{CE}=30V		0.7	mA
I_{EBO}	V_{BE}=7.0V		5.0	mA
BV_{CEO}	I_C=200mA	60		V
BV_{CER}	I_C=200mA, R_{BE}=100Ω	70		V
$V_{CE(SAT)}$	I_C=4.0A, I_B=400mA		1.1	V
$V_{CE(SAT)}$	I_C=10A, I_B=3.3A		3.0	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=4.0A		1.5	V
h_{FE}	V_{CE}=4.0V, I_C=4.0A	20	70	
h_{FE}	V_{CE}=4.0V, I_C=10A	5.0	-	
h_{fe}	V_{CE}=4.0V, I_C=1.0A, f=1.0kHz	15	120	
f_T	V_{CE}=10V, I_C=0.5A, f=1.0MHz	2.5		MHz
f_{hfe}	V_{CE}=4.0V, I_C=1.0A, f=1.0kHz	10		kHz
$I_{s/b}$	V_{CE}=40V, t=1.0s	2.87		A