



COMPLEMENTARY SILICON POWER TRANSISTORS

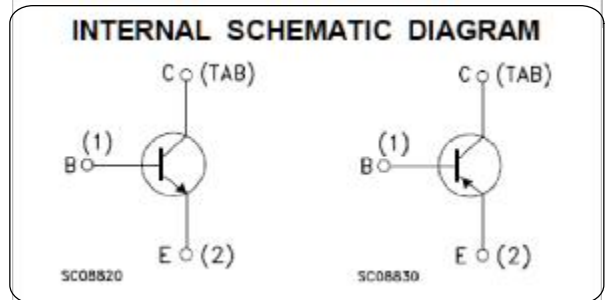
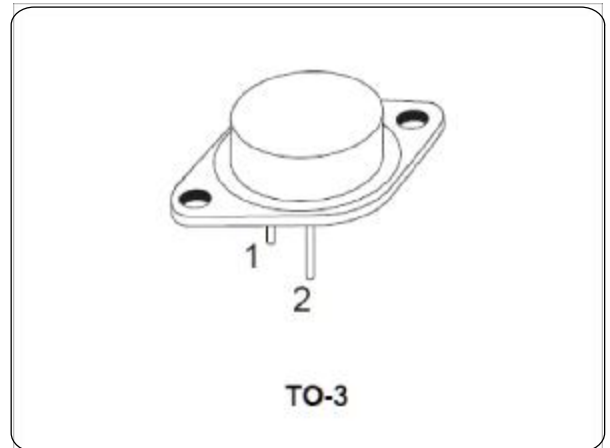
2N3055/MJ2955

DESCRIPTION

The 2N3055 is a silicon Epitaxial-Base Planar NPN transistor mounted in Jedec TO-3 metal case. It is intended for power switching circuits, series and shunt regulators, output stages and high fidelity amplifiers. The complementary PNP type is MJ2955.

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

Parameter	I	Value	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	15	A
Base Current	I_B	7	A
Total Dissipation at	P_{tot}	115	W
Max. Operating Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	0	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CEO}	$V_{CE}=50\text{V}, I_B=0$	—	—	0.7	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=7\text{V}, I_C=0$	—	—	5.0	mA
Collector-Emitter Sustaining Voltage	V_{CEO}	$I_C=100\text{mA}, I_B=0$	60	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=4.0\text{V}, I_C=4.0\text{A}$	30	—	70	
	$h_{FE(2)}$	$V_{CE}=4.0\text{V}, I_C=10\text{A}$	15	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4.0\text{A}, I_B=400\text{mA}$	—	—	1.0	V
		$I_C=10\text{A}, I_B=3.3\text{A}$	—	—	3.0	
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=4\text{V}, I_C=4.0\text{A}$	—	—	1.8	V
Current Gain Bandwidth Product	f_T	$V_{CE}=4.0\text{V}, I_C=500\text{mA}$	—	3.0	—	MHz