

**isc Silicon PNP Power Transistors**

**MJ2955**

**DESCRIPTION**

- Excellent Safe Operating Area
- DC Current Gain-  
:  $h_{FE}=20-70@I_C=-4A$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)}=-1.1V(Max)@I_C=-4A$
- Complement to Type 2N3055

**APPLICATIONS**

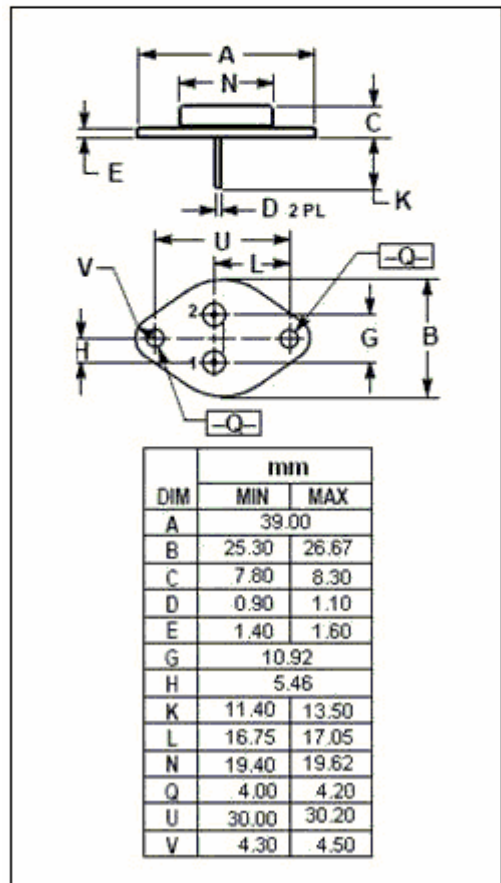
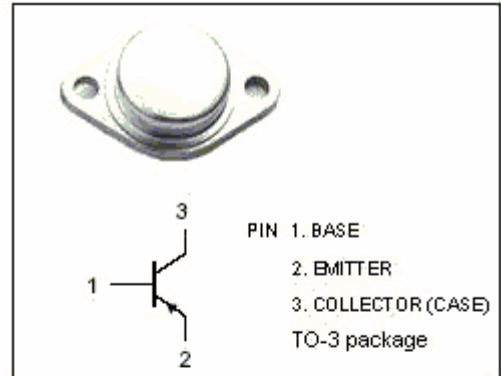
- Designed for general-purpose switching and amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-100	V
$V_{CER}$	Collector-Emitter Voltage	-70	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current-Continuous	-15	A
$I_B$	Base Current	-7	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}C$	115	W
$T_J$	Junction Temperature	200	$^{\circ}C$
$T_{stg}$	Storage Temperature	-65~200	$^{\circ}C$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.52	$^{\circ}C/W$



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## ELECTRICAL CHARACTERISTICS

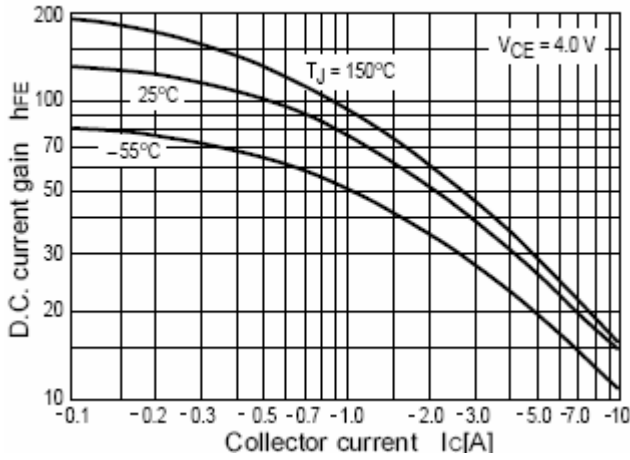
T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = -200mA ; I <sub>B</sub> = 0	-60		V
V <sub>CER(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = -200mA ; R <sub>BE</sub> = 100 Ω	-70		V
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -4A; I <sub>B</sub> = -0.4A		-1.1	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -10A; I <sub>B</sub> = -3.3A		-3.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -4A ; V <sub>CE</sub> = -4V		-1.5	V
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -30V; I <sub>B</sub> = 0		-0.7	mA
I <sub>CEx</sub>	Collector Cutoff Current	V <sub>CE</sub> = -100V; V <sub>BE(off)</sub> = -1.5V V <sub>CE</sub> = -100V; V <sub>BE(off)</sub> = -1.5V, T <sub>C</sub> = 150°C		-1.0 -5.0	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -7.0V; I <sub>C</sub> =0		-5.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -4A ; V <sub>CE</sub> = -4V	20	70	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -10A ; V <sub>CE</sub> = -4V	5.0		
I <sub>s/b</sub>	Second Breakdown Collector Current with Base Forward Biased	V <sub>CE</sub> = -40V, t= 1.0s, Nonrepetitive	-2.87		A
f <sub>T</sub>	Current Gain-Bandwidth Product	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -10V; f <sub>test</sub> = 1.0MHz	2.5		MHz

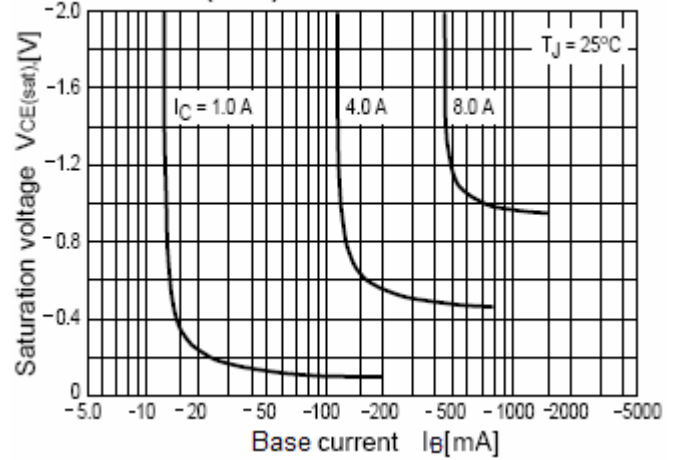
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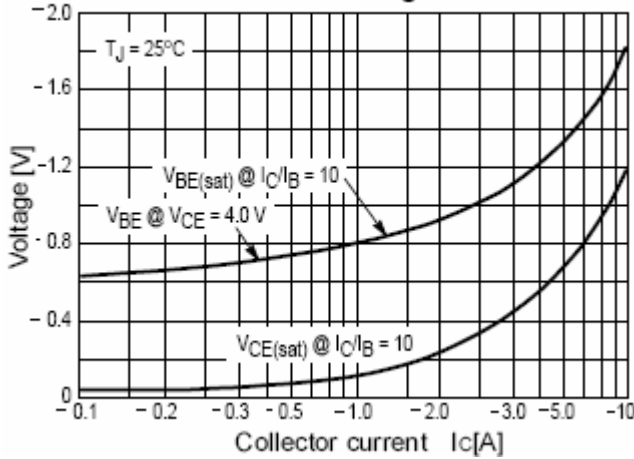
**$h_{FE}-I_C$  Characteristics**



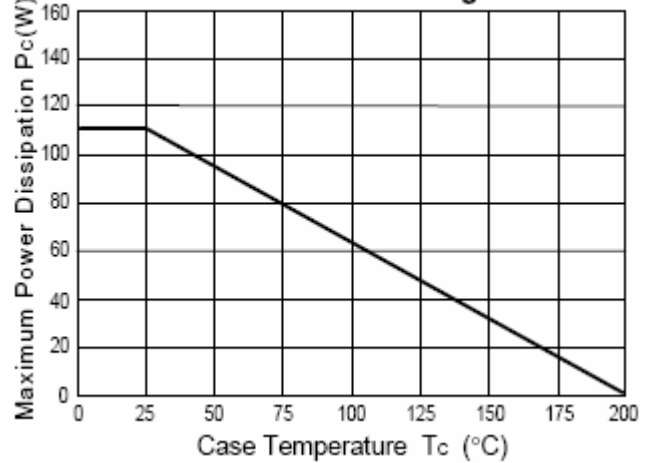
**$V_{CE(sat)}-I_B$  Characteristics**



**"On" Voltages**



**Power Derating**



**Safe Operating Area**

