

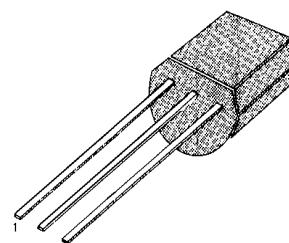
## SWITCHING AND AMPLIFIER APPLICATIONS

- Complement to BC635/638/640

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

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage at $R_{BE}=1\text{Kohm}$	$V_{CER}$	45	V
		60	V
		100	V
Collector Emitter Voltage	$V_{CES}$	45	V
		60	V
		100	V
Collector Emitter Voltage	$V_{CEO}$	45	V
		60	V
		80	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	1	A
Peak Collector Current	$I_{CP}$	1.5	A
Base Current	$I_B$	100	mA
Collector Dissipation	$P_C$	1	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-65 ~ 150	$^\circ\text{C}$

TO-92



1. Emitter 2. Collector 3. Base

- PW=5ms, Duty Cycle=10%

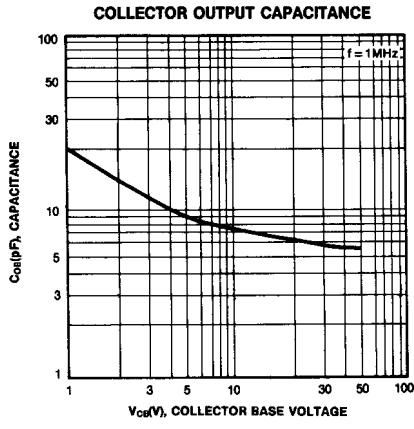
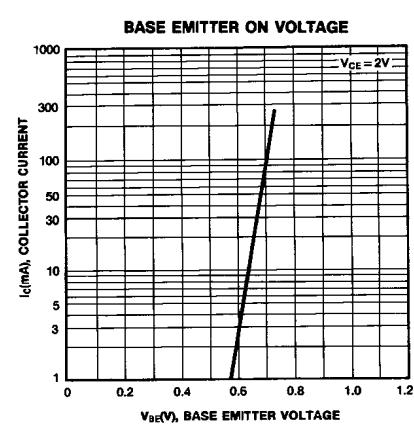
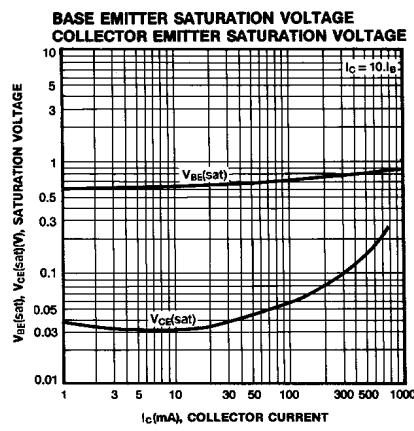
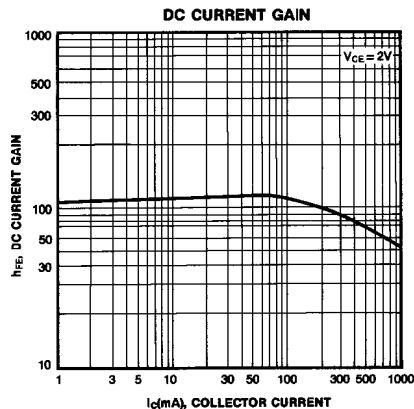
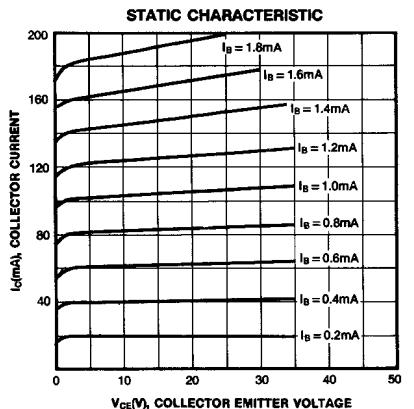
ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ )

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=10\text{mA}, I_B=0$	45			V
Collector Cut-off Current Emitter Cut-off Current DC Current Gain	$I_{CBO}$ $I_{EBO}$ $h_{FE}$	$V_{CB}=30\text{V}, I_E=0$ $V_{EB}=5\text{V}, I_C=0$ $V_{CE}=2\text{V}, I_C=5\text{mA}$ $V_{CE}=2\text{V}, I_C=150\text{mA}$	80	0.1 0.1	250 160	$\mu\text{A}$ $\mu\text{A}$
Collector Emitter Saturation Voltage Base Emitter On Voltage Current Gain Bandwidth Product	$V_{CE}(\text{sat})$ $V_{BE}(\text{on})$ $f_T$	$V_{CE}=2\text{V}, I_C=500\text{mA}$ $I_C=500\text{mA}, I_B=50\text{mA}$ $V_{CE}=2\text{V}, I_C=500\text{mA}$ $V_{CE}=5\text{V}, I_C=10\text{mA}, f=50\text{MHz}$	25	100	0.5 1	V MHz

Rev. B

BC635/637/639

NPN EPITAXIAL SILICON TRANSISTOR



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