

BC636/638/640

PNP EPITAXIAL SILICON TRANSISTOR

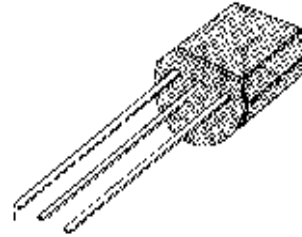
SWITCHING AND AMPLIFIER APPLICATIONS

- Complement to BC635/637/639

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

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage : BC636 at $R_{BE}=1\text{Kohm}$: BC638 : BC640	V_{CER}	-45 -60 -100	V V V
Collector Emitter Voltage : BC636 : BC638 : BC640	V_{CES}	-45 -60 -100	V V V
Collector Emitter Voltage : BC636 : BC638 : BC640	V_{CEO}	-45 -60 -80	V V 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	$^\circ\text{C}$

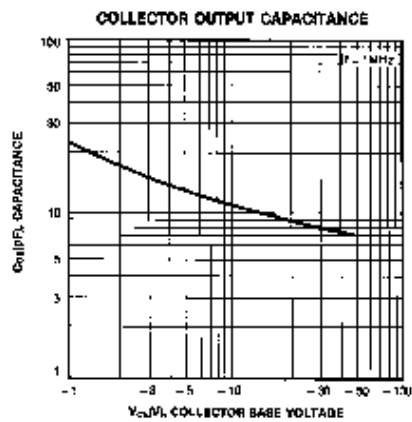
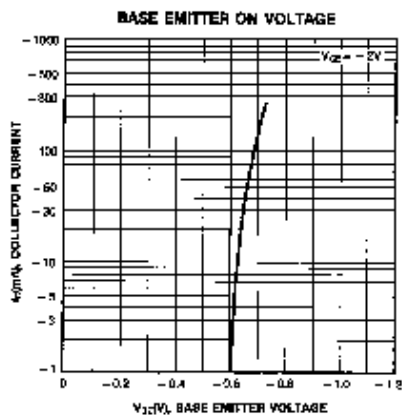
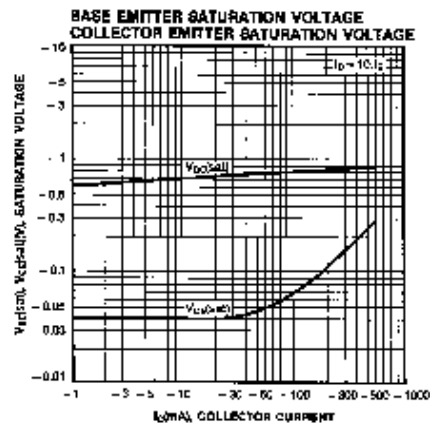
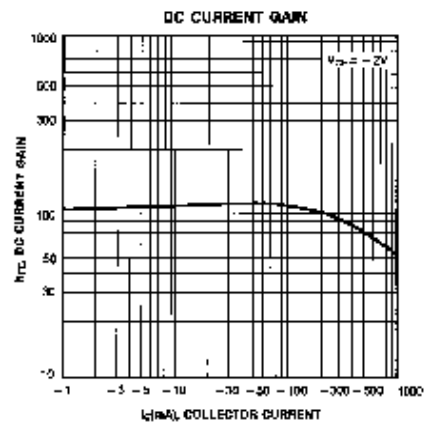
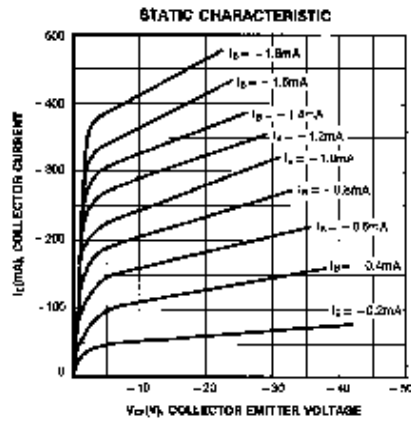
TO-92



1. Emitter 2. Collector 3. Base

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage : BC636 : BC638 : BC640	BV_{CEO}	$I_C = -10\text{mA}$, $I_B = 0$	-45 -60 -80			V V V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -30\text{V}$, $I_E = 0$			-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$			-0.1	μA
DC Current Gain : BC635 : BC637/BC639	h_{FE}	$V_{CE} = -2\text{V}$, $I_C = -5\text{mA}$ $V_{CE} = -2\text{V}$, $I_C = -150\text{mA}$	25 40 40		250 160	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$V_{CE} = -2\text{V}$, $I_C = -500\text{mA}$ $I_C = -500\text{mA}$, $I_B = -50\text{mA}$	25		-0.5	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -2\text{V}$, $I_C = -500\text{mA}$			-1	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$, $f = 50\text{MHz}$		100		MHz



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