

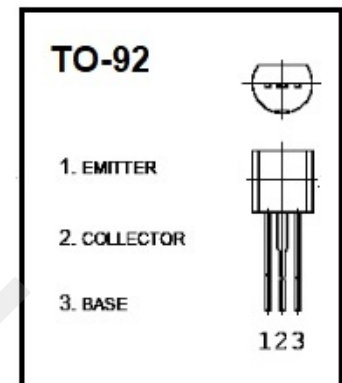
BC640

Features

- Switching and Amplifier Applications
- Package: TO-92
- Complement to: BC639

Maximum Ratings (Ta = 25°)

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	BV_{CBS}	-100	V
Collector-emitter voltage	BV_{CEO}	-80	V
Emitter-base voltage	BV_{EBO}	-5	V
Collector current	I_{CM}	-1	A
Collector Power Dissipation	P_C	0.85	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -100\mu A, I_E = 0$	-100			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -10mA, I_B = 0$	-80			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -100\mu A, I_C = 0$	-5			V
collector-emitter cut-off current	I_{CBO}	$V_{CE} = -30V, I_B = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{CE} = -5V, I_B = 0$			-0.1	μA
DC current gain	H_{FE}	$V_{CE} = -2V, I_C = -150mA$	63		250	
DC current gain	H_{FE1}	$V_{CE} = -2V, I_C = -5mA$	25			
	H_{FE2}	$V_{CE} = -2V, I_C = -500mA$	25			
collector-emitter saturation voltage	V_{CESAT}	$I_C = -500mA, I_B = -50mA$			-0.5	V
Base-Emitter On Voltage	V_{BEON}	$V_{CE} = -2V, I_C = -500mA$			-1.0	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -10mA$		100		MHz

Classification of H_{FE}

Rank	10	16
Range	63-160	100-250