

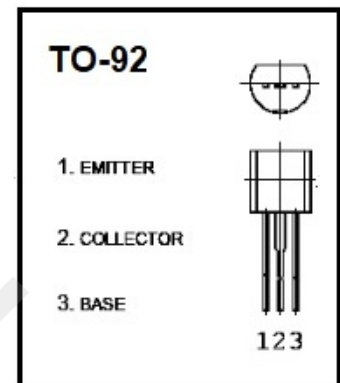
BC639

Features

- Switching and Amplifier Applications
- Package: TO-92
- Complement to: BC640

Maximum Ratings (Ta = 25°)

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	BV_{CBO}	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_{CES}	$I_C=100\mu A, I_E=0$	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