

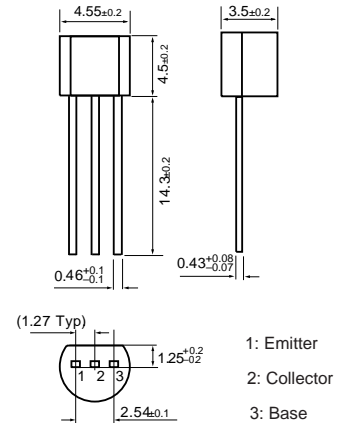
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

TO-92

FEATURE

Power Dissipation:
P_{CM}: 0.83 mW (T_{amb}=25°C)



MAXIMUM RATINGS (TA=25 °C unless otherwise specified)

PARAMETERS		SYMBOLS	VALUES	UNIT
Collector - Emitter Voltage	BC636	V _{CEO}	-45	V
	BC638		-60	V
	BC640		-80	V
Collector - Base Voltage	BC636	V _{CBO}	-45	V
	BC638		-60	V
	BC640		-100	V
Emitter - Base Voltage		V _{EBO}	-5	V
Collector Current - Continuous		I _C	-1	A
Collector Power Dissipation		I _{CP}	-1.5	A
		I _B	100	mA
Junction, Storage Temperature		T _J , T _{STG}	150, -65 ~ 150	°C
Thermal Resistance from Junction to Ambient		R _{θJA} *	150	K/W

ELECTRICAL CHARACTERISTICS (TA=25 °C unless otherwise specified)

PARAMETERS	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector - emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0 BC636	-45			V
		BC638	-60			V
		BC640	-80			V
Collector cut-off current	I _{CBO}	V _{CB} =-30V, I _E =0			-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _B =0			-0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =-2V, I _C =-5mA	40			
	h _{FE(2)}	V _{CE} =-2V, I _C =-150mA BC636-10	63		160	
		BC636-16, BC638-16, BC640-16	100		250	
h _{FE(3)}	V _{CE} =-2V, I _C =-500mA	25				
Collector - emitter saturation voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-0.5	V
Base - emitter voltage	V _{BE(ON)}	V _{CE} =-2V, I _C =-500mA			-1	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-50mA, f=100MHz	100			MHZ

CLASSIFICATION OF h_{FE(2)}

RANK	BC636-10	BC636-16, BC638-16, BC640-16
RANGE	63-160	100-250

TYPICAL CHARACTERISTICS

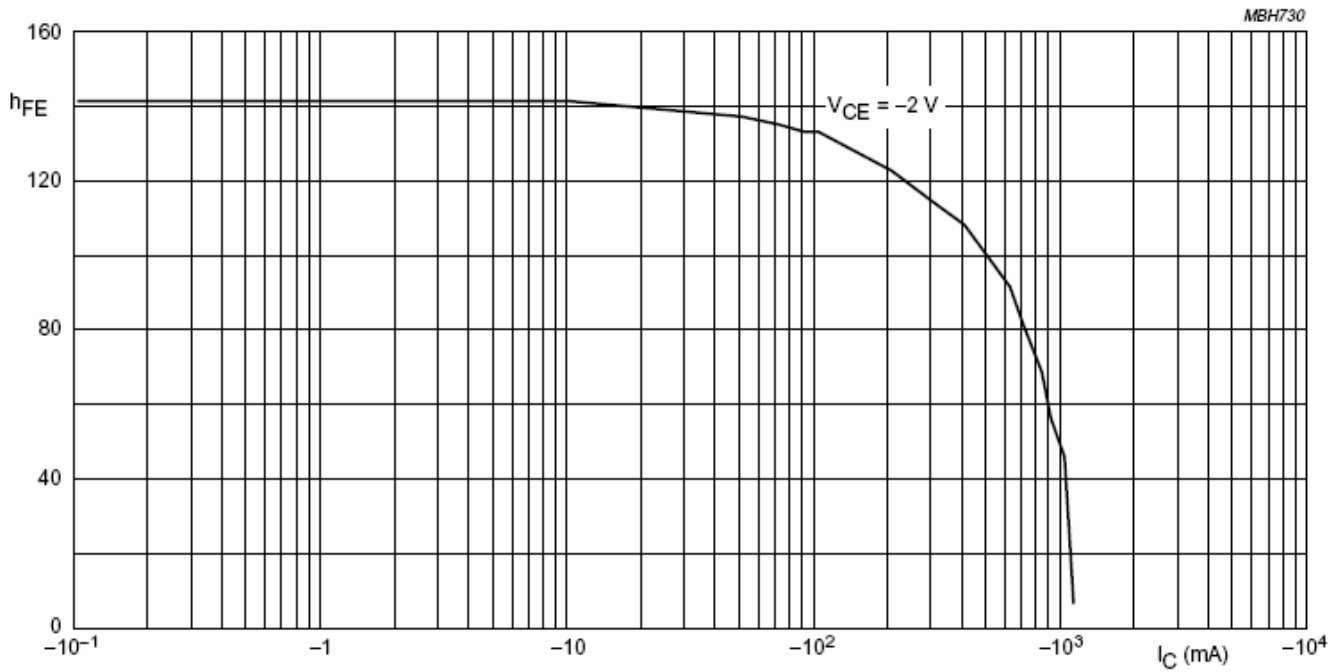


Fig. 1 DC current gain; typical values.