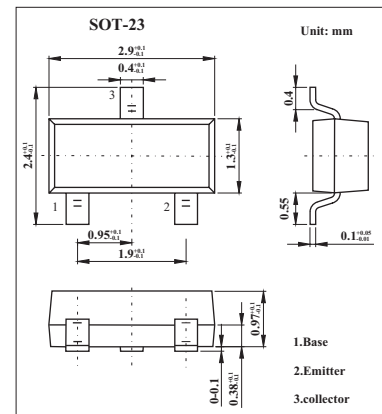


Silicon NPN Epitaxial

2SC2715

■ Features

- High power gain: $G_{pe} = 2\text{dB}$ (typ.) ($f = 10.7\text{ MHz}$).
- Recommended for FM IF, OSC stage and AM CONV. IF stage.

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	35	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	4	V
Collector current	I_C	50	mA
Base current	I_B	10	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +125	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 35\text{ V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4\text{ V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 12\text{ V}, I_C = 2\text{ mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$			0.4	V
Base-emitter voltage	V_{BE}	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$			1	V
Transition frequency	f_T	$V_{CE} = 10\text{ V}, I_C = 1\text{ mA}$	100		400	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		2	3.2	pF
Collector-base time constant	$C_{c.rbb'}$	$V_{CE} = 10\text{ V}, I_E = -1\text{ mA}, f = 30\text{ MHz}$			50	ps
Power gain	G_{pe}	$V_{CC} = 6\text{ V}, I_E = -1\text{ mA}, f = 10.7\text{ MHz}$	27	30	33	dB

■ h_{FE} Classification

Marking	R		
Rank	R	O	Y
h_{FE}	40~80	70~140	120~240