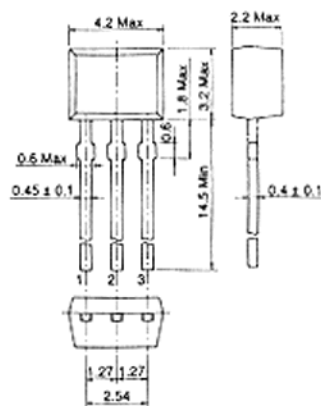


2SC3494

SILICON NPN EPITAXIAL PLANAR

FM RF/IF AMPLIFIER



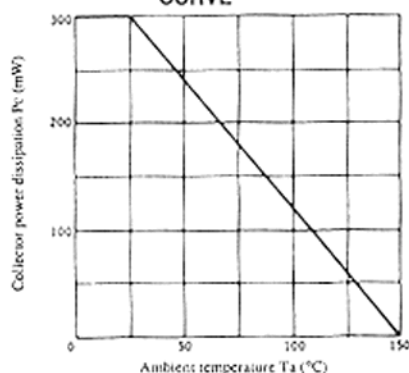
(SPAK)

1. Emitter
 2. Collector
 3. Base
- (Dimensions in mm)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC3494	Unit
Collector to base voltage	V _{CB0}	30	V
Collector to emitter voltage	V _{CE0}	30	V
Emitter to base voltage	V _{EB0}	5	V
Collector current	I _C	100	mA
Collector power dissipation	P _C	300	mW
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

■ MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V _{(BR)CB0}	I _C = 10μA, I _E = 0	30	—	—	V
Collector to emitter breakdown voltage	V _{(BR)CE0}	I _C = 1mA, R _{BE} = ∞	30	—	—	V
Emitter to base breakdown voltage	V _{(BR)EB0}	I _E = 10μA, I _C = 0	5	—	—	V
Collector cutoff current	I _{CB0}	V _{CB} = 18V, I _E = 0	—	—	0.5	μA
Emitter cutoff current	I _{EB0}	V _{EB} = 2V, I _C = 0	—	—	0.5	μA
DC current transfer ratio	h _{FE} *	V _{CE} = 12V, I _C = 2mA	60	—	200	
Base to emitter voltage	V _{BE}	V _{CE} = 12V, I _C = 2mA	—	0.63	0.75	V
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 10mA, I _B = 1mA	—	0.6	1.1	V
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz	—	1.8	3.5	pF
Noise figure	NF	V _{CE} = 6V, I _E = -1mA, f = 1MHz, R _g = 500Ω	—	5.0	—	dB
Power gain	PG	V _{CE} = 6V, I _E = -1mA, f = 10.7MHz	26	29	—	dB
		V _{CE} = 6V, I _E = -1mA, f = 100MHz	13	17	—	

* The 2SC3494 is grouped by hit as follows.

B	C
60 to 120	100 to 200

■ See characteristic curves of 2SC460.