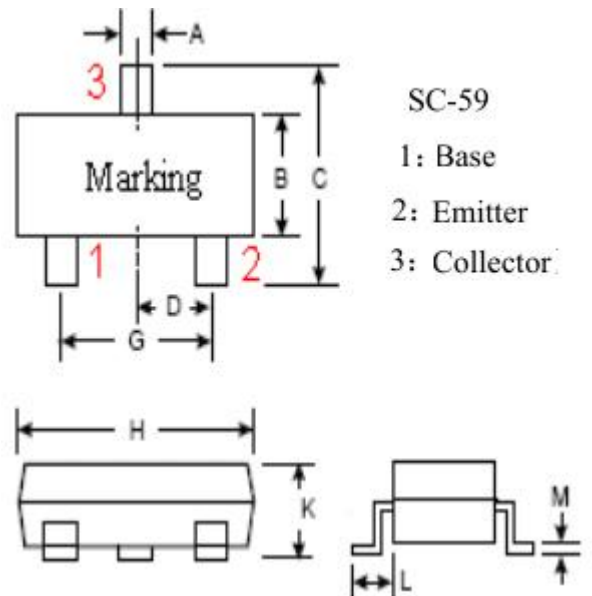


isc Silicon NPN RF Transistor
2SC3585
DESCRIPTION

- Collector Current $I_C = 35\text{mA}$
- Collector-Emitter Breakdown Voltage:
: $V_{(BR)CEO} = 10\text{V}(\text{Min})$
- High gain:
| S_{21e} | $^2 = 5.5\text{ dB}$ (typical) ($I_C = 5\text{mA}, f = 2\text{GHz}$)
- Gain bandwidth product
 $f_T = 10\text{ GHz}$ (typical) ($I_C = 10\text{mA}, f = 1\text{GHz}$)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for VHF, UHF and CATV high frequency wideband low noise amplifier applications.


ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	20	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{EBO}	Emitter-Base Voltage	1.5	V
I_C	Collector Current-Continuous	35	mA
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

symbol	Min	Max
A	0.35	0.50
B	1.40	1.70
C	2.70	3.10
D	0.95	
G	1.70	2.10
H	2.70	3.10
K	1.00	1.30
L	0.5	0.85
M	0.10	0.35

isc Silicon NPN RF Transistor
2SC3585
ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1μA ; I _E = 0	20			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 10V; I _E = 0			0.1	μ A
I _{EBO}	Emitter-Base Cutoff Current	V _{EB} = 1V; I _E = 0			0.1	μ A
h _{FE}	DC Current Gain	I _C = 10mA ; V _{CE} = 6V	50	150	300	
f _T	Current-Gain—Bandwidth Product	V _{CE} =6V, I _C =10mA, f=1GHz		10		GHz
C _{re}	Output feedback capacitance	V _{CB} =10V, I _E =0mA, f=1MHz		0.65		pF
S _{21e} ²	Power gain	V _{CE} =6V, I _C =10mA, f=2GHz		5.5		dB
NF	Noise factor	V _{CE} =6V, I _C =5mA, f=2GHz		2.5		dB

◆ h_{FE} Classifications

step	A	B	C	D	E
label	R43	R44	R45		
h _{FE}	60-100	90-140	130-180	170-250	250-300

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