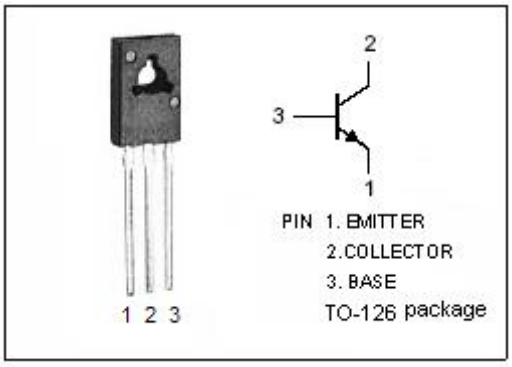
isc Silicon NPN Power Transistor — 2SC3419

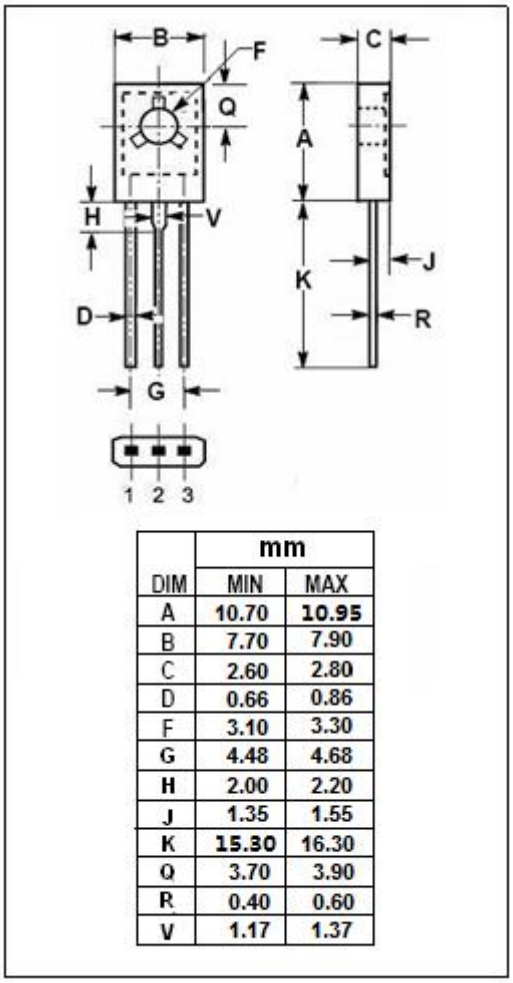


DESCRIPTION

- Low Collector Saturation Voltage
- High power dissipation
- Complementary to 2SA1356
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Medium power amplifier applications



DIM	mm MIN	mm MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	0.8	A
P_C	Collector Power Dissipation @ Tc=25℃	5.0	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base breakdown voltage	I_C=1mA ; I_B=0	40			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=10mA ; I_B=0	40			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=1mA ; I_C=0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C=500mA; I_B= 50mA			0.8	V
$V_{BE(ON)}$	Base-Emitter On Voltage	I_C= 500mA ; V_{CE}= 2V			1.1	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 40V ; I_E= 0			1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1.0	μA
h_{FE-1}	DC Current Gain	I_C= 50mA ; V_{CE}= 2V	70		240	
h_{FE-2}	DC Current Gain	I_C= 800mA ; V_{CE}= 2V	13			
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f= 1MHz		10		pF
f_T	Current-Gain—Bandwidth Product	I_E= -500mA; V_{CE}= 2V	50	100		MHz

◆ **h_{FE-1} Classifications**

O	Y
70-140	120-240