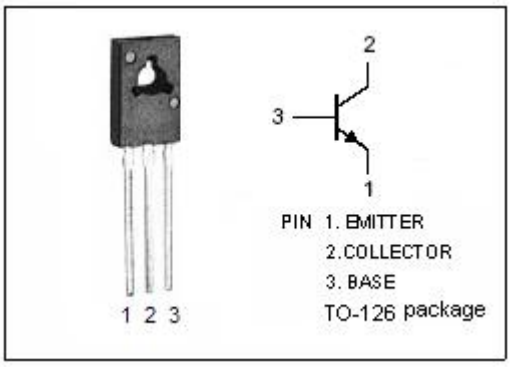
isc Silicon NPN Power Transistor — 2SC2594

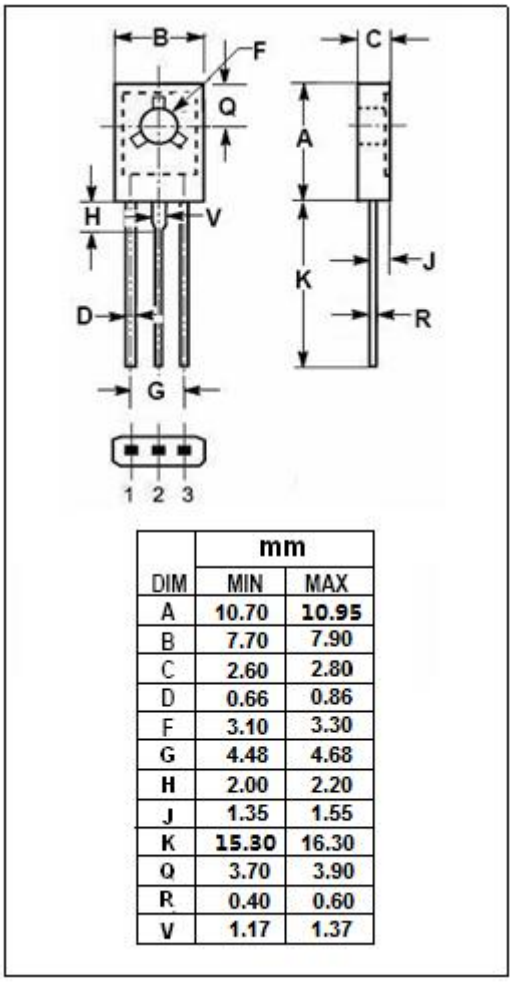
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 20V(Min)
- Good Linearity of h_{FE}
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- AF power amplifier
- For electronic flash unit
- Converter



DIM	mm MIN	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	20	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ T_C=25℃	10	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
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 1mA; I_B= 0	20			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 10 μA; I_C= 0	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.1A			1.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 10V; I_E= 0			0.1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			0.1	μA
h_{FE-1}	DC Current Gain	I_C= 0.5A; V_{CE}= 2V	140		450	
h_{FE-2}	DC Current Gain	I_C= 1A; V_{CE}= 2V	70			
f_T	Current-Gain—Bandwidth Product	I_E= -50mA; V_{CB}= 6V		150		MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 20V, f_{test}= 1MHz			50	pF