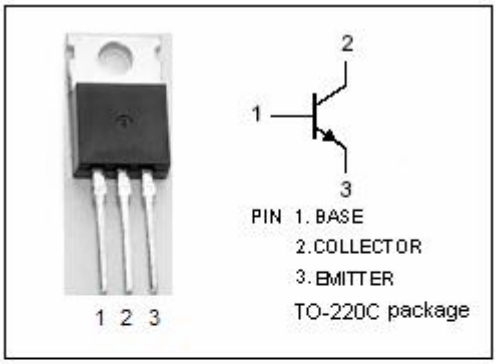
isc Silicon NPN Power Transistor 2SC1060

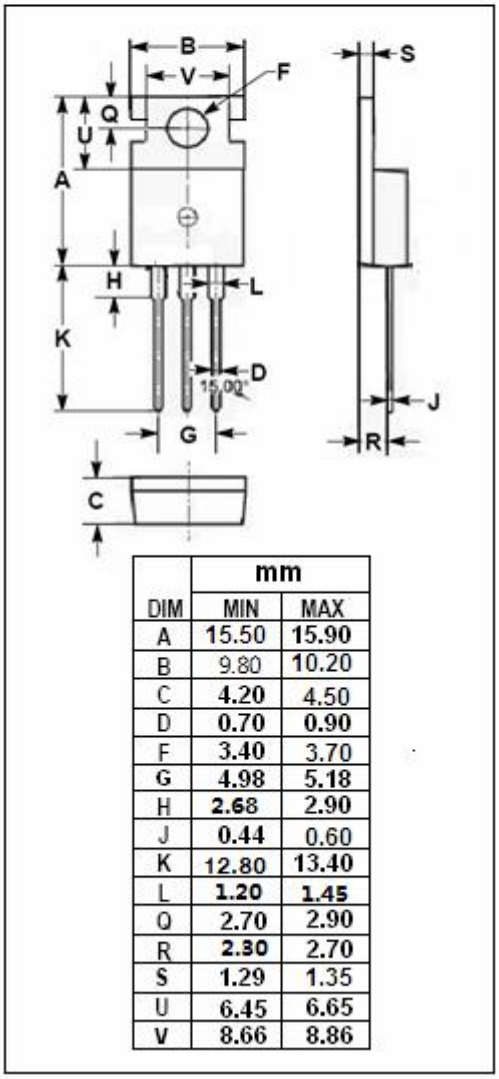
DESCRIPTION

- With TO-220 package
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 50V(Min)
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max)@ I_C= 2A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Switching regulators
- DC-DC convertor
- General purpose power amplifiers



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	3	A
P_C	Collector Power Dissipation @T_C=25℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	5.0	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=50mA ; I_B=0	50		V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C =5mA ; I_E=0	50		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E =5mA ; I_C=0	4		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.2A		1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 1A ; V_{CE}= 4V		1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 20V; I_B=0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V; I_C=0		0.1	mA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 4V	35	320	
h_{FE-2}	DC Current Gain	I_C= 5A ; V_{CE}= 2V	35		

◆ **h_{FE} Classifications**

A	B	C	D
35-70	60-120	100-200	160-320