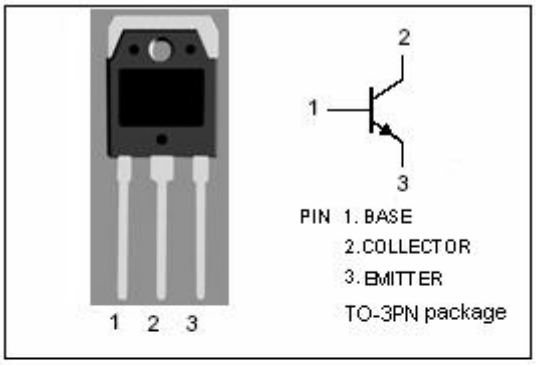
SPTECH Silicon NPN Power Transistor

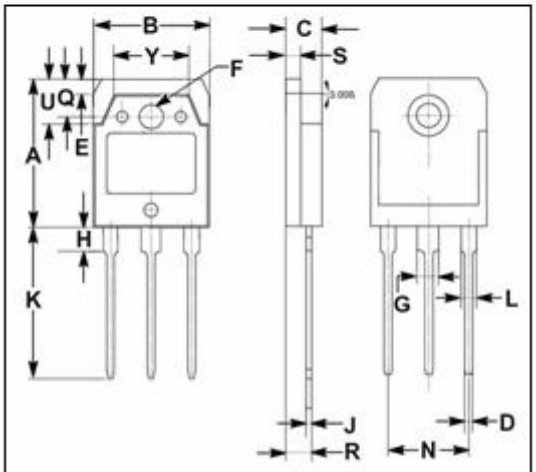
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 200V(Min)-2SC6011
  = 200V(Min)-2SC6011A
- Good Linearity of h_{FE}
- Complement to Type 2SA2151/A
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for audio and general purpose applications



DIM	mm MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	2SC6011	200	V
		2SC6011A	230	
V_{CEO}	Collector-Emitter Voltage	2SC6011	200	V
		2SC6011A	230	
V_{EBO}	Emitter-Base Voltage		6	V
I_C	Collector Current-Continuous		15	A
I_B	Base Current-Continuous		4	A
P_C	Collector Power Dissipation @ T_C=25℃		160	W
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature Range		-55~150	℃

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	2SC6011	I_C= 50mA ; I_B= 0	200			V
		2SC6011A		230			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		I_C= 5A; I_B= 0.5A			0.5	V
I_{CBO}	Collector Cutoff Current	2SC6011	V_{CB}= 200V ; I_E= 0			10	μA
		2SC6011A	V_{CB}= 230V ; I_E= 0				
I_{EBO}	Emitter Cutoff Current		V_{EB}= 6V; I_C= 0			10	μA
h_{FE}	DC Current Gain		I_C= 3A ; V_{CE}= 4V	50		180	
C_{OB}	Output Capacitance		I_E= 0 ; V_{CB}= 10V; f_{test}= 1.0MHz		270		pF
f_T	Current-Gain—Bandwidth Product		I_E= -0.5A ; V_{CE}= 12V		20		MHz

◆ **h_{FE} Classifications**

O	P	Y
50-100	70-140	90-180