

SPTECH Product Specification

SPTECH Silicon NPN Power Transistor

2SC6011/A

DESCRIPTION

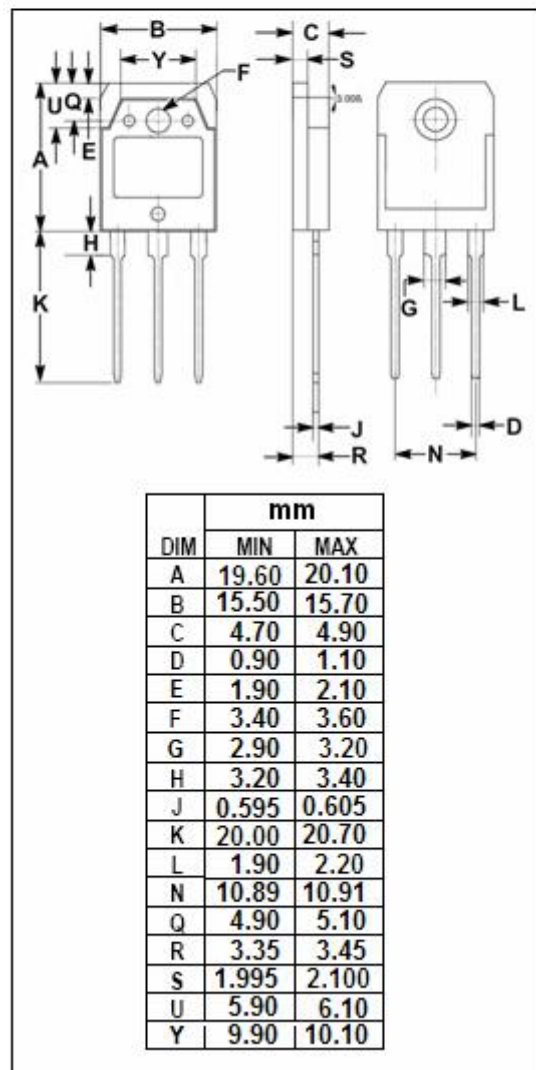
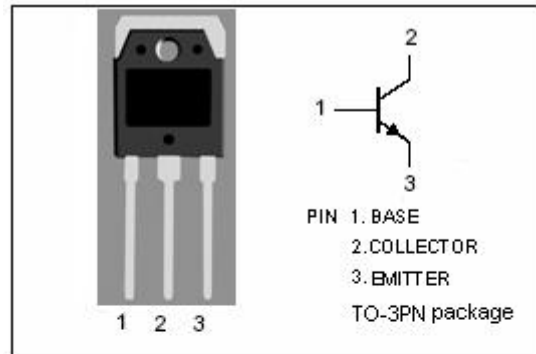
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})-2SC6011$
= $200V(\text{Min})-2SC6011A$
- Good Linearity of h_{FE}
- Complement to Type 2SA2151/A
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio and general purpose applications

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

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 @ $T_C=25^\circ\text{C}$	160	W	
T_J	Junction Temperature	150	$^\circ\text{C}$	
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$	



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ELECTRICAL CHARACTERISTICS

$T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	2SC6011	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			10	μA
		2SC6011A				
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