

SPTECH Product Specification

SPTECH Silicon NPN Power Transistor

2SC6011/A

DESCRIPTION

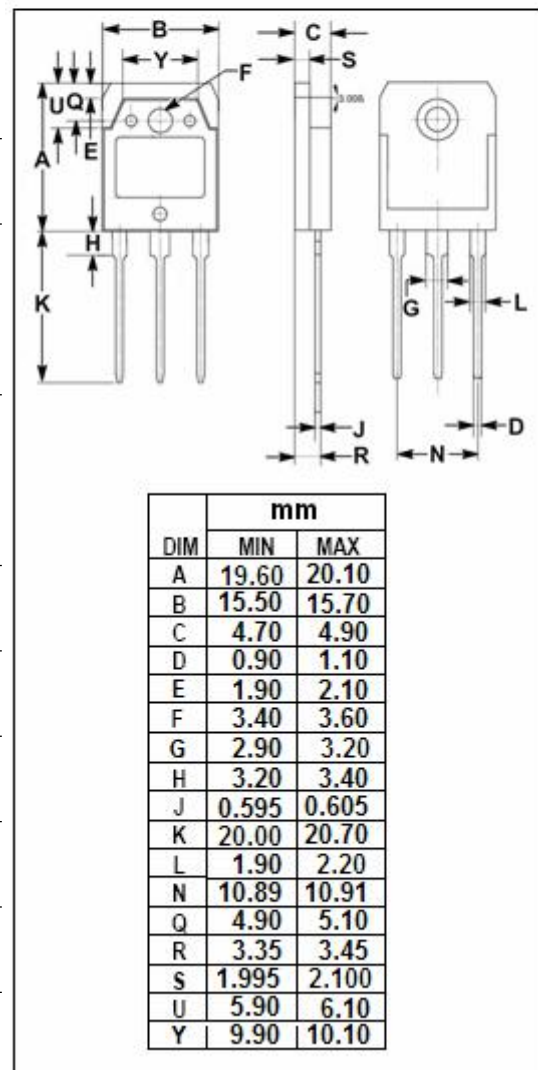
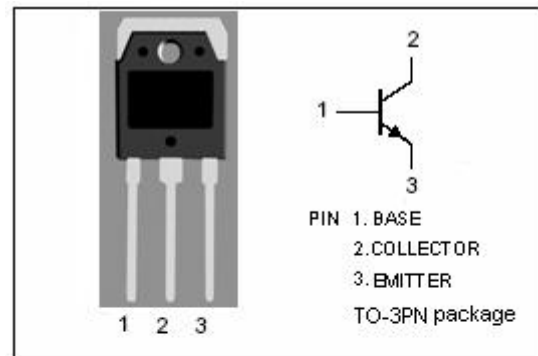
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})$ -2SC6011
= 200V(Min)-2SC6011A
- Good Linearity of h_{FE}
- Complement to Type 2SA2151/A
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio and general purpose applications

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

◆ h_{FE} Classifications

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