

For Audio Amplifier output - TV Velocity Modulation (160V, 1.5A)

2SC5511

●Structure

NPN Silicon Epitaxial Planar Transistor

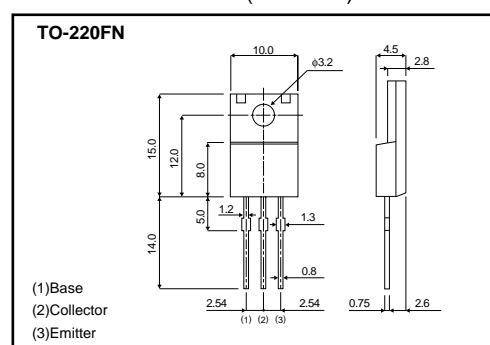
●Features

- 1) Electrical characteristics of DC current gain h_{FE} is flat.
- 2) High breakdown voltage. ($BV_{CEO}=160V$ (Min.), at $I_C=1mA$)
- 3) High f_t . (Typ. 150MHz, at $V_{CE}=10V$, $I_E=-0.2A$, $f=100MHz$)
- 4) Wide SOA.

●Applications

Power amplifier
Velocity modulation

●External dimensions (Unit : mm)



●Complements

PNP	NPN
2SA2005	2SC5511

●Absolute maximum ratings ($T_a=25^{\circ}C$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	160	V
Collector-emitter voltage	V_{CEO}	160	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	DC	I_C	1.5
	Pulse	I_{CP}	3
Collector power dissipation	P_C	2	W($T_a=25^{\circ}C$)
		20	W($T_c=25^{\circ}C$)
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	-55 to +150	$^{\circ}C$

*1 $t=100ms$

●Packaging specifications and h_{FE}

Type	Package	Taping
2SC5511	h_{FE}	Code
	h_{FE}	Basic ordering unit (pieces)
2SC5511	E	500

h_{FE} values are classified as follows:

Item	E
h_{FE}	100 to 200

●Electrical characteristics ($T_a=25^{\circ}C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	160	—	—	V	$I_C=1mA$
Collector-base breakdown voltage	BV_{CBO}	160	—	—	V	$I_C=50\mu A$
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	$I_E=50\mu A$
Collector cutoff current	I_{CBO}	—	—	1.0	μA	$V_{CB}=160V$
Emitter cutoff current	I_{EBO}	—	—	1.0	μA	$V_{EB}=4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	1.0	V	$I_C/I_B=1A/0.1A$
Base-emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C/I_B=1A/0.1A$
DC current gain	h_{FE}	100	—	200	—	$V_{CE}=5V$, $I_C=0.1A$
Transition frequency	f_t	—	150	—	MHz	$V_{CE}=10V$, $I_E=-0.2A$, $f=100MHz$
Collector output capacitance	C_{ob}	—	20	—	pF	$V_{CB}=10V$, $I_E=0A$, $f=1MHz$

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