High-voltage Switching (Audio output amplifier transistor, Stabilized power supply transistor)
2SA1964

●**Features**
1) Flat DC current gain characteristics.
2) High breakdown voltage. (BV_{CEO}=−160V)
3) High f_T. (Typ.150MHz)
4) Wide SOA (safe operating area).
5) Complements the 2SC5248.

●**Packaging specifications and h_{FE}**

Type	2SA1964
Package	TO-220FP
h_{FE}	DE
Code	—
Basic ordering unit (pieces)	500

●**Absolute maximum ratings (Ta=25℃)**

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	I_C	−1.5	A
Collector power dissipation	P_C	2	W
		20	W(Tc=25℃)
Junction temperature	Tj	150	℃
Storage temperature	Tstg	−55~150	℃

●**Electrical characteristics (Ta=25℃)**

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=−50μA
Emitter-base breakdown voltage	BV_{EBO}	−5	—	—	V	I_E=−50μA
Collector cutoff current	I_{CBO}	—	—	−1	μA	V_{CB}=−160V
Emitter cutoff current	I_{EBO}	—	—	−1	μA	V_{EB}=−4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	−1	V	I_C/I_B=−1A/−0.1A
DC current transfer ratio	h_{FE}	60	—	200	—	V_{CE}=−5V, I_C=−0.1A
Transition frequency	f_T	—	150	—	MHz	V_{CE}=−10V, I_E=−0.2A, f=100MHz
Output capacitance	Cob	—	35	—	pF	V_{CB}=−10V, I_E=0A, f=1MHz

(SPEC-A315)

High-voltage Switching (Audio output amplifier transistor, Stabilized power supply transistor)
2SC5248

●**Features**
1) Flat DC current gain characteristics.
2) High breakdown voltage. (BV_{CEO}=160V)
3) High f_T. (Typ.150MHz)
4) Wide SOA (safe operating area).
5) Complements the 2SA1964.

●**Packaging specifications and h_{FE}**

Type	2SC5248
Package	TO-220FP
h_{FE}	DE
Code	—
Basic ordering unit (pieces)	500

●**Absolute maximum ratings (Ta=25℃)**

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	I_C	1.5	A
Collector power dissipation	P_C	2	W
		20	W(Tc=25℃)
Junction temperature	Tj	150	℃
Storage temperature	Tstg	−55~150	℃

●**Electrical characteristics (Ta=25℃)**

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=50μA
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	I_E=50μA
Collector cutoff current	I_{CBO}	—	—	1	μA	V_{CB}=160V
Emitter cutoff current	I_{EBO}	—	—	1	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	1	V	I_C/I_B=1A/0.1A
DC current transfer ratio	h_{FE}	60	—	200	—	V_{CE}=5V, I_C=0.1A
Transition frequency	f_T	—	150	—	MHz	V_{CE}=10V, I_E=0.2A, f=100MHz
Output capacitance	Cob	—	20	—	pF	V_{CB}=10V, I_E=0A, f=1MHz

(SPEC-C315)

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