

isc Silicon NPN Power Transistor
2SC2344
DESCRIPTION

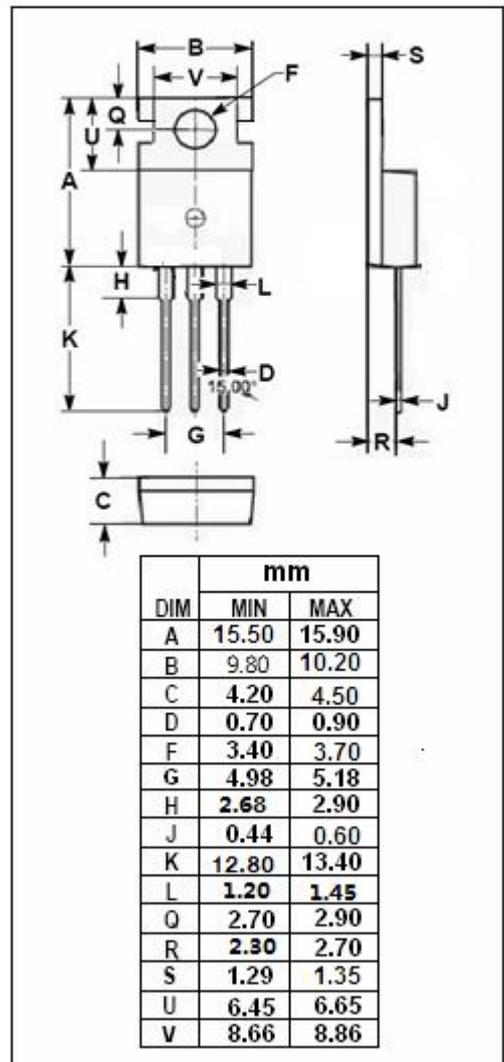
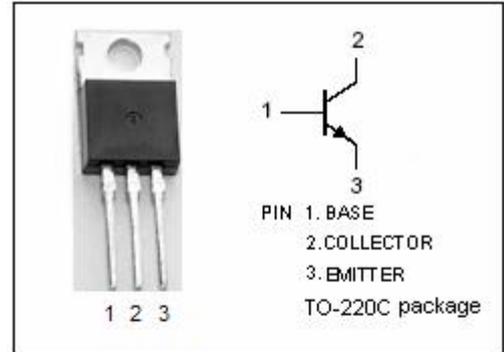
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.3V(\text{Typ.}) @ I_C = 0.5A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 160V(\text{Min.})$
- Complement to Type 2SA1011
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high-voltage switching, audio frequency power amplifiers, 100W output predriver applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	1.5	A
I_{CM}	Collector Current-Peak	3.0	A
P_C	Total Power Dissipation@ $T_C = 25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature Range	-55~150	°C



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA; R _{BE} = ∞	160			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	180			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10mA; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 50mA		0.5		V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 10mA; V _{CE} = 5V		1.5		V
I _{CBO}	Collector Cutoff Current	V _{CB} = 120V; I _E = 0			10	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			10	μA
h _{FE}	DC Current Gain	I _C = 0.3A; V _{CE} = 5V	60		200	
f _T	Current-Gain—Bandwidth Product	I _C = 50mA ; V _{CE} = 10V		100		MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz		23		pF

Switching Times

t _{on}	Turn-On Time	I _C = 0.5A, I _{B1} = -I _{B2} = 50mA		0.15		μs
t _{stg}	Storage Time			0.81		μs
t _f	Fall Time			0.48		μs

◆ h_{FE} Classifications

D	E
60-120	100-200

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