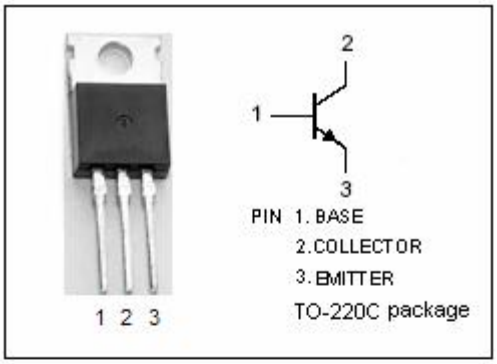
isc Silicon NPN Power Transistor — 2SC2344

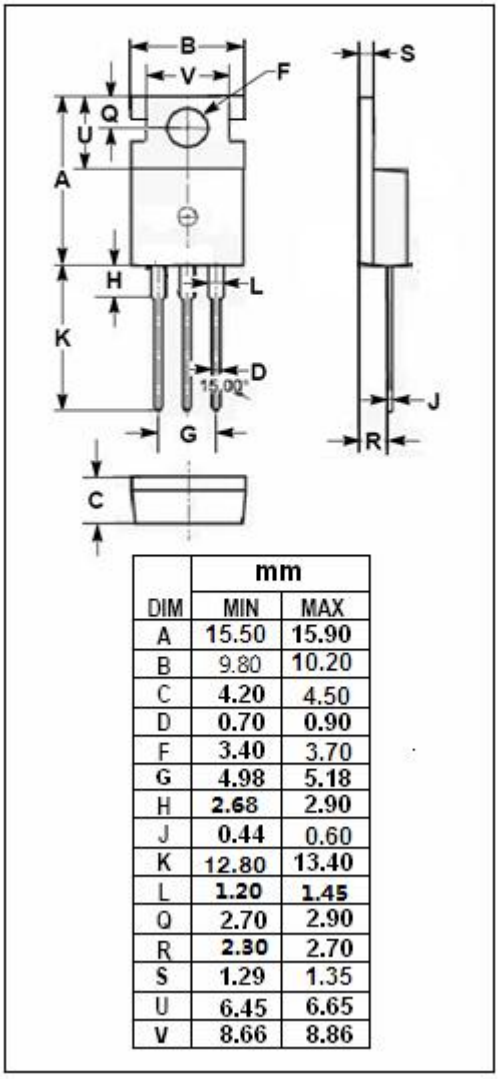


DESCRIPTION

- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 0.3V(Typ.)@ I_C= 0.5A
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 160V(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.



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

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℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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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