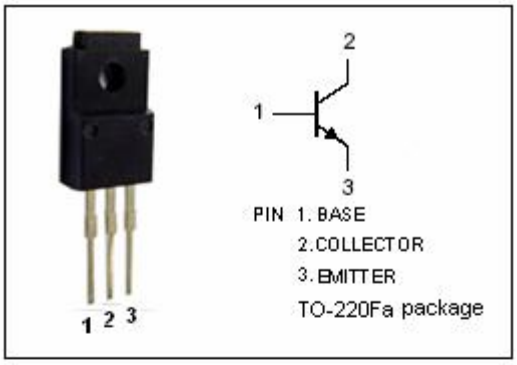
isc Silicon PNP Power Transistor 2SA1307

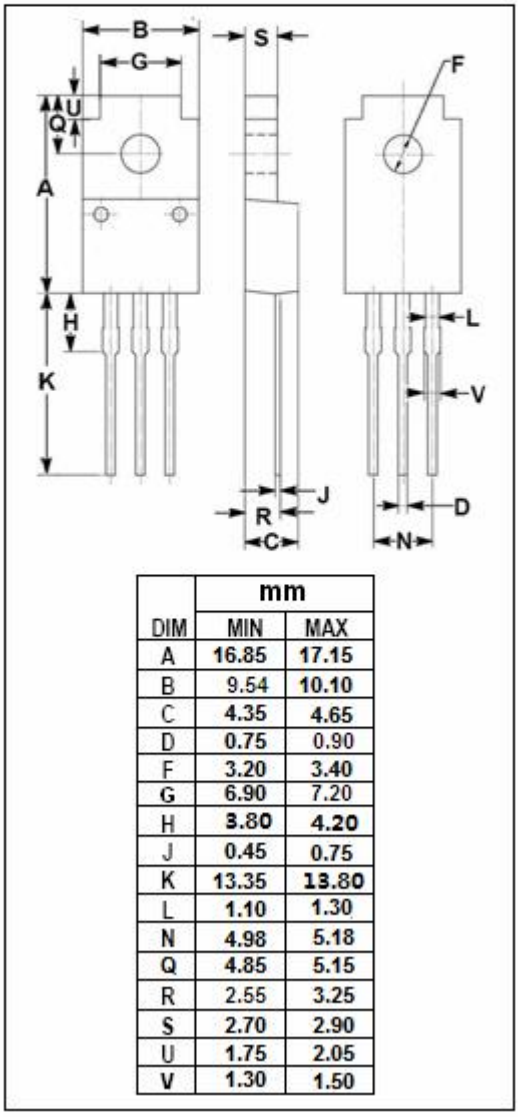


DESCRIPTION

- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= -0.4V(Max.)@I_C= -3A
- High Switching Speed
- Complement to Type 2SC3299
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

- Designed for high current switching applications.



DIM	mm MIN	MAX
A	16.85	17.15
B	9.54	10.10
C	4.35	4.65
D	0.75	0.90
F	3.20	3.40
G	6.90	7.20
H	3.80	4.20
J	0.45	0.75
K	13.35	13.80
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.55	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-5	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @T_a=25℃	2	W
	Collector Power Dissipation @T_C=25℃	20	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -10mA; I_B= 0	-50			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -3A; I_B= -0.15A			-0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -3A; I_B= -0.15A			-1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -50V; I_E= 0			-1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-1.0	μA
h_{FE-1}	DC Current Gain	I_C= -1A; V_{CE}= -1V	70		240	
h_{FE-2}	DC Current Gain	I_C= -3A; V_{CE}= -1V	30			
f_T	Current-Gain—Bandwidth Product	I_C= -1A; V_{CE}= -4V		60		MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= -10V; f= 1MHz		170		pF
Switching Times						
t_{on}	Turn-On Time	I_{B1}= -I_{B2}= -0.15A; V_{CC}= -30V; R_L= 10Ω; Duty Cycle≤1%		0.1		μs
t_{stg}	Storage Time			1.0		μs
t_f	Fall Time			0.1		μs

◆ h_{FE-1} Classifications

O	Y
70-140	120-240

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