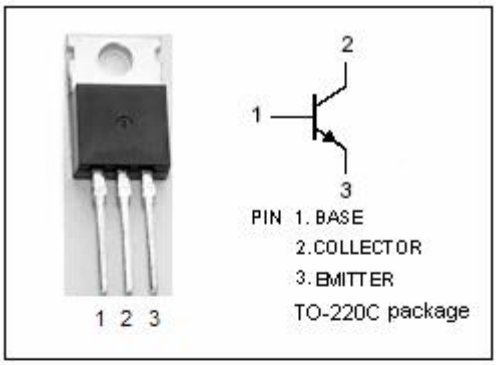
isc Silicon NPN Power Transistor — 2SD1372



DESCRIPTION

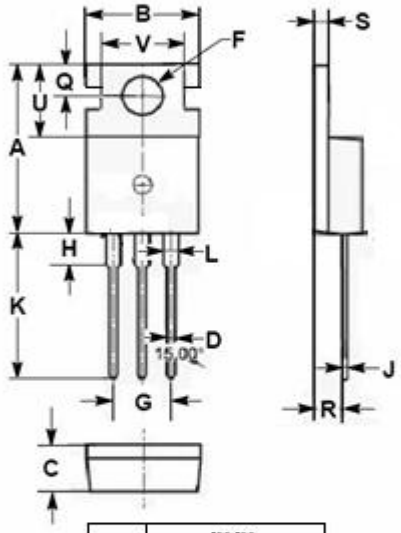
- High Collector-Base Voltage-
  : V_{CBO}= 300V(Min.)
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in high-voltage,high-speed,power switching regulators,converters,inverters,motor control system.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	4.0	A
I_{CM}	Collector Current-Peak	6.0	A
I_B	Base Current	1.0	A
P_C	Collector Power Dissipation@T_C=25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃



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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA; I_B= 0	300			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1A; I_B= 0.2A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 1A; I_B= 0.2A			1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 300V; I_E= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			0.1	mA
h_{FE}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	30		100	
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 10V, f_{test}= 1MHz	5			MHz
Switching Times ;Resistive Load						
t_{on}	Turn-on Time	I_C= 1A;I_{B1}= 0.2A; I_{B2}= -0.4A; V_{CC}= 250V		0.2		μs
t_s	Storage Time			2.0		μs
t_f	Fall Time			0.4		μs