isc Silicon NPN Power Transistor — 2SD1136

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 80V (Min)
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power switching and TV horizontal deflection output applications.

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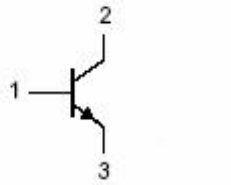
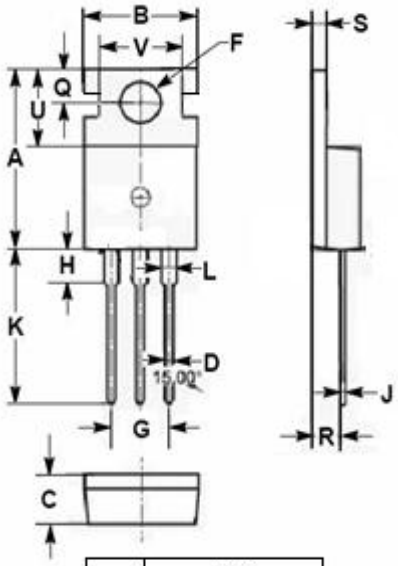


PIN 1. BASE
2.COLLECTOR
3. EMITTER
TO-220C package

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	5	A
$I_{C(surge)}$	Collector Current-Surge	15	A
P_C	Collector Power Dissipation @ T_a=25℃	1.8	W
	Collector Power Dissipation @ T_C=25℃	30	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-45~150	℃



DIM	mm MIN	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
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ; R_{BE}= ∞	80			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	200			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.4A			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 0.4A			1.5	V
I_{CES}	Collector Cutoff Current	V_{CE}= 150V; R_{BE}= 0			1.0	mA
h_{FE}	DC Current Gain	I_C= 4A; V_{CE}= 5V	20			
t_f	Fall Time	I_C= 3.5A; I_{B1}= 0.45A, L_B= 0			1.0	μs