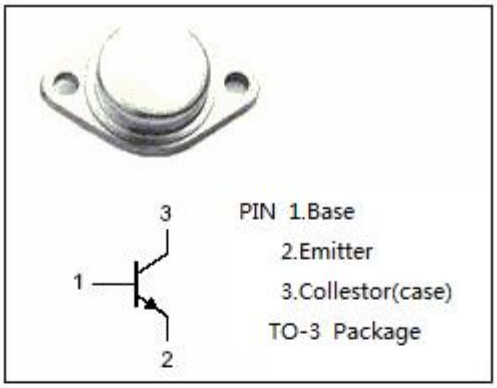
isc Silicon NPN Power Transistor — 2SD338

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)\ CEO}$= 70V(Min)
- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 2.0V(Max)@ I_C = 5A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

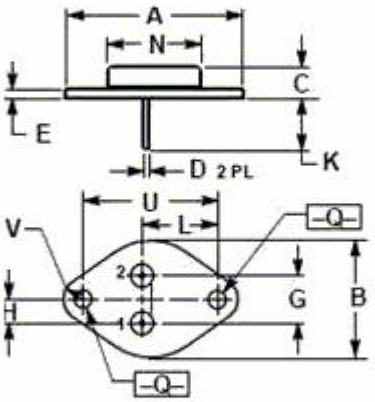


APPLICATIONS

- Designed for use in general purpose amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	70	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation@T_C=25℃	60	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 30mA ; I_B= 0	70		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA ; I_C= 0	8		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 70V; V_{EB}= 0		50	uA
I_{CEO}	Collector Cutoff Current	V_{CE}= 70V; I_B= 0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0		10	uA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 2V	50	200	
h_{FE-2}	DC Current Gain	I_C= 3A ; V_{CE}= 2V	30		
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A ; V_{CE}= 10V	4		MHz