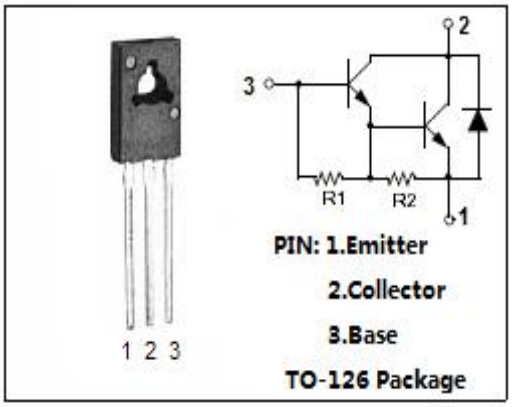
isc Silicon NPN Darlington Power Transistor 2SD1638

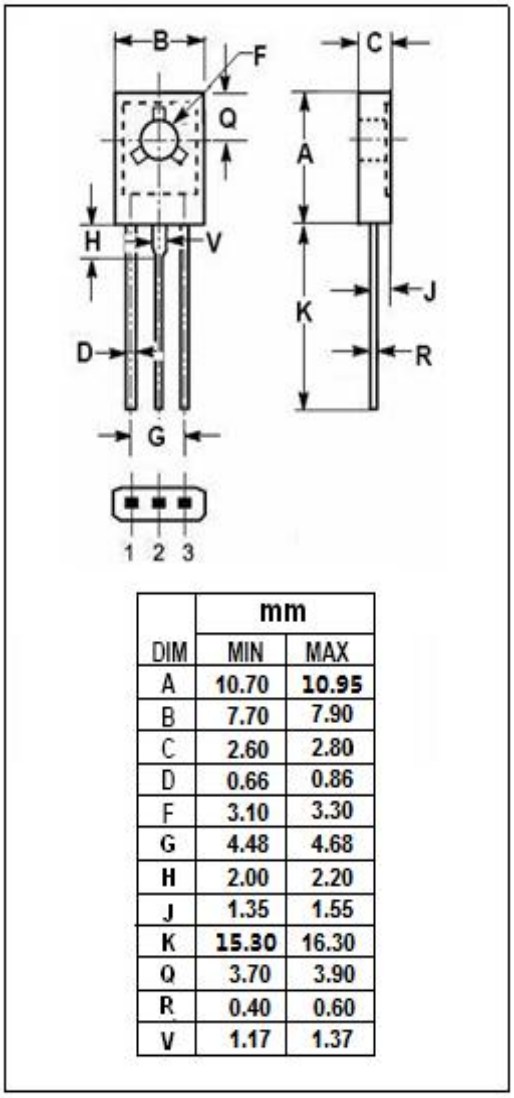


DESCRIPTION

- High DC Current Gain-
  : h_{FE} = 1000(Min)@ I_C= 1A
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$ = 100V(Min)
- Low Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$ = 1.5V(Max)@ I_C= 1A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency power amplifier applications.



DIM	mm MIN	mm MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Peak	3	A
P_C	Collector Power Dissipation T_C=25℃	15	W
	Collector Power Dissipation T_a=25℃	1.2	
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= 5mA, I_B= 0	100			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 50 μ A, I_E= 0	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1A ,I_B= 1mA			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V, I_E= 0			10	μ A
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			3	mA
h_{FE}	DC Current Gain	I_C= 1A ; V_{CE}= 2V	1000		10000	
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V,f= 1MHz		25		pF