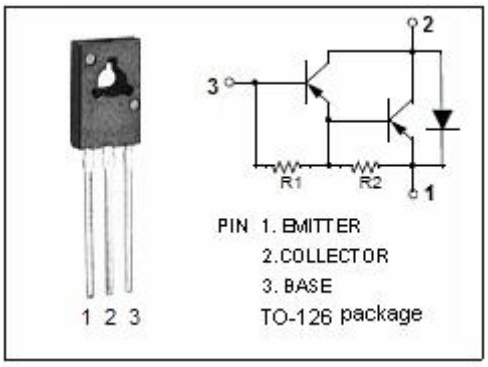
isc Silicon PNP Darlington Power Transistor 2N6036

DESCRIPTION

- Collector–Emitter Sustaining Voltage—
  : $V_{CEO(SUS)}$ = -80V(Min.)
- DC Current Gain—
  : h_{FE} = 750(Min) @ I_C= -2A
- Complement to Type 2N6039
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

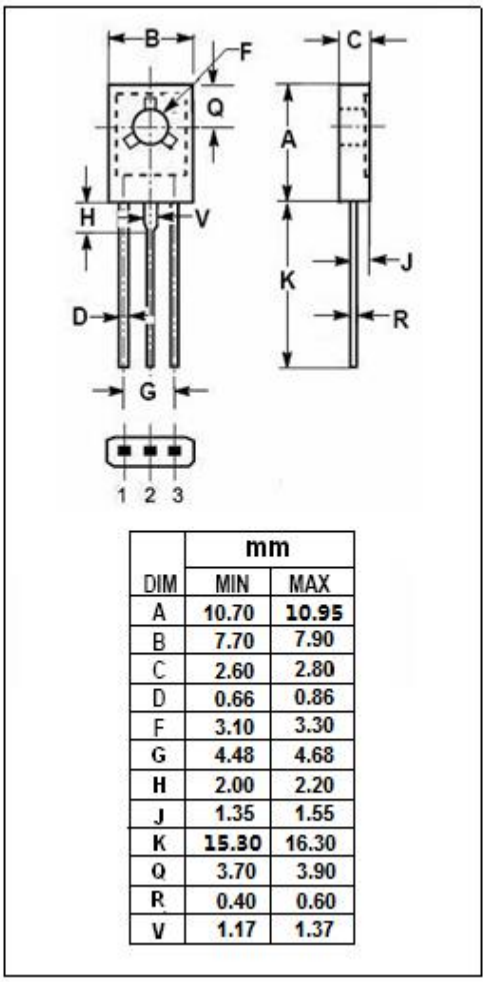
APPLICATIONS

- Designed for general-purpose amplifier and low-speed switching applications.



ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	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	-8	A
I_B	Base Current	-0.1	A
P_C	Collector Power Dissipation T_C=25℃	40	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



DIM	mm MIN	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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	3.12	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	83.3	℃/W

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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= -10mA; I_B= 0	-80		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= -2A; I_B= -8mA		-2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -4A; I_B= -40mA		-3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -4A; I_B= -40mA		-4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -2A; V_{CE}= -3V		-2.8	V
I_{CEO}	Collector Cutoff Current	V_{CE}= -80V; I_B= 0		-0.1	mA
I_{CEX}	Collector Cutoff Current	V_{CE}=-80V;$V_{BE(off)}$=-1.5V; V_{CB}=-80V;$V_{BE(off)}$=-1.5V;T_C= 125℃		-0.1 -0.5	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= -80V; I_E= 0		-0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0		-2.0	mA
h_{FE-1}	DC Current Gain	I_C= -0.5A ; V_{CE}= -3V	500		
h_{FE-2}	DC Current Gain	I_C= -2A ; V_{CE}= -3V	750	15000	
h_{FE-3}	DC Current Gain	I_C= -4A ; V_{CE}= -3V	100		
C_{OB}	Output Capacitance	I_E=0; V_{CB}= -10V; f= 0.1MHz		200	pF

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