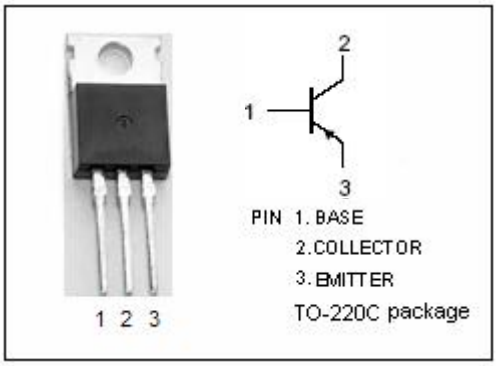
isc Silicon PNP Power Transistor — MJE5730

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= -300V(Min)
- DC current gain -
  : h_{FE} = 30~150@ I_C= -0.3A
- With TO-220 Package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

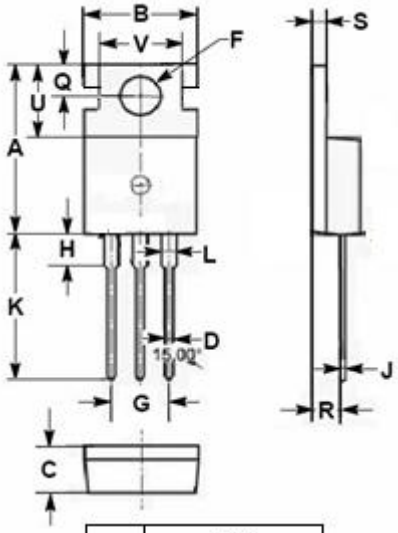
- Designed for line operated audio output amplifier,switchmode power supply drivers and other switching applications

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	-5	V
I_C	Collector Current-Continuous	-1	A
I_{CM}	Collector Current-Peak	-3	A
I_B	Base Current	-1	A
P_C	Collector Power Dissipation @T_a=25℃	2	W
	Collector Power Dissipation @T_C=25℃	40	
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	3.125	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	62.5	℃/W



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	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= -30mA ;I_B= 0	-300		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -1A ;I_B= -0.2A		-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -1A ; V_{CE}= -10V		-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -300V; I_E= 0		-1.0	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= -300V; I_B= 0		-1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0		-1.0	mA
h_{FE-1}	DC Current Gain	I_C= -0.3A ; V_{CE}= -10V	30	150	
h_{FE-2}	DC Current Gain	I_C= -1A ; V_{CE}= -10V	10		
f_T	Current Gain-Bandwidth Product	I_C= -0.2A;V_{CE}= -10V; f_{test}= 2.0MHz	10		MHz

Pulse Test: Pulse Width ≤300 μs, Duty Cycle ≤2%.

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