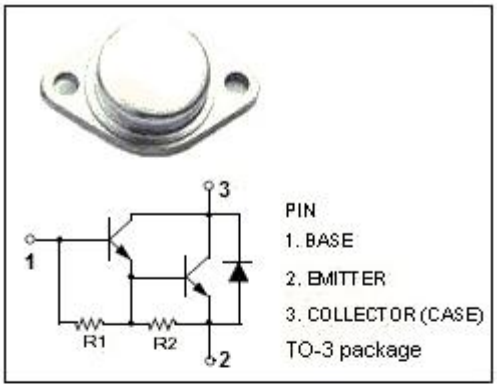
isc Silicon NPN Darlington Power Transistor MJ3041

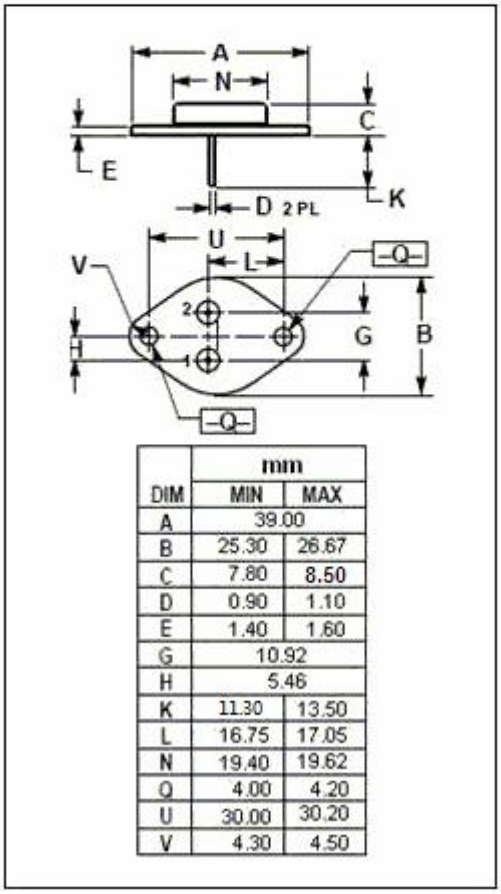
DESCRIPTION

- High DC Current Gain
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for line operated amplifier series pass and switching regulator applications.



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
P_C	Collector Power Dissipation @T_C=25℃	175	W
T_j	Junction Temperature	-65~200	℃
T_{stg}	Storage Temperature Range	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)*}$	Collector-Emitter Sustaining Voltage	I_C= 100mA, I_B= 0	300			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 2.5A ,I_B= 50mA			2.2	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 5A ,I_B= 0.4A			2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A ,I_B= 0.4A			3.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 2.5A ; V_{CE}= 5V			2.5	V
I_{CBO}	Collector Cutoff Current	V_{CE}= 400V, I_B=0			1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C=0			3	mA
h_{FE-1}	DC Current Gain	I_C= 2.5A ; V_{CE}= 5V	250			
h_{FE-2}	DC Current Gain	I_C= 5A ; V_{CE}= 5V	50			

*:Pulse test:Pulse width≤300us,duty cycle≤2%