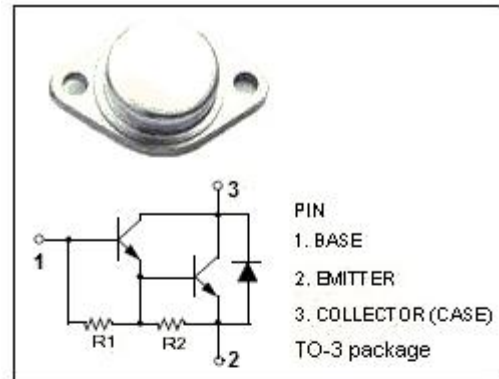


isc Silicon NPN Darlington Power Transistor
MJ3041
DESCRIPTION

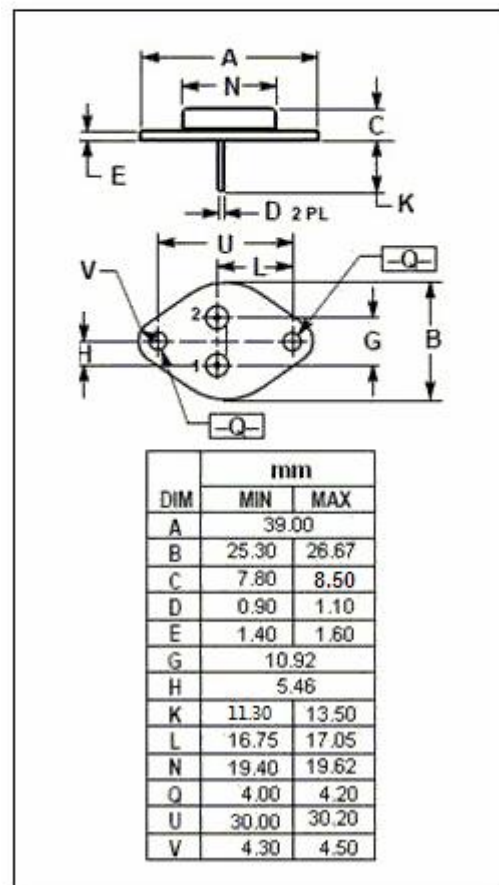
- High DC Current Gain
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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


ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	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°C	175	W
T _j	Junction Temperature	-65~200	°C
T _{stg}	Storage Temperature Range	-65~200	°C


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.0	°C/W

isc Silicon NPN Darlington Power Transistor**MJ3041****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

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

*:Pulse test:Pulse width $\leq 300\mu\text{s}$,duty cycle $\leq 2\%$ **NOTICE:**

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