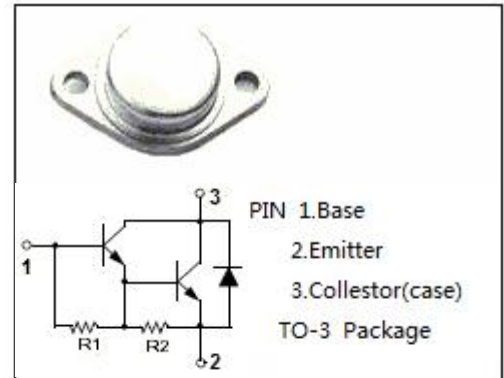


isc Silicon NPN Darlington Power Transistor

2N6494

DESCRIPTION

- High DC current gain
: $h_{FE} = 500(\text{Min}) @ I_C = 3A$
- With TO-3 package
- Low collector saturation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

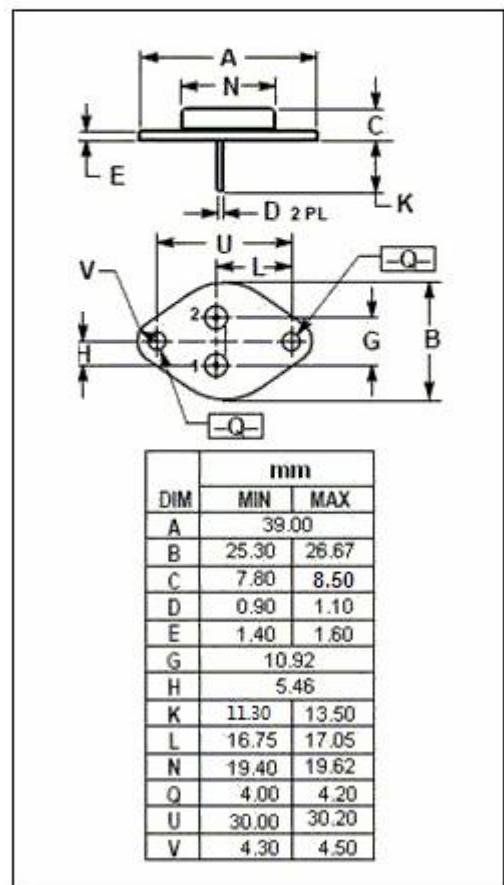
- Designed for general-purpose power amplifier and low frequency swithing applications.

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
P_C	Collector Power Dissipation@ $T_c = 25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.75	$^\circ\text{C/W}$



isc Silicon NPN Darlington Power Transistor
2N6494
ELECTRICAL CHARACTERISTICS
 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=0.1\text{A}$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=0.1\text{A}$			4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=3\text{A}; V_{CE}=4\text{V}$			2.8	V
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			3	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=80\text{V}; I_B=0$			1	mA
I_{CBO}	Collector Base Cutoff Current	$V_{CB}=100\text{V}; I_E=0$			0.5	mA
h_{FE-1}	DC Current Gain	$I_C=3\text{A}; V_{CE}=4\text{V}$	500			
h_{FE-2}	DC Current Gain	$I_C=15\text{A}; V_{CE}=4\text{V}$	100			

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