

isc Silicon PNP Darlington Power Transistor

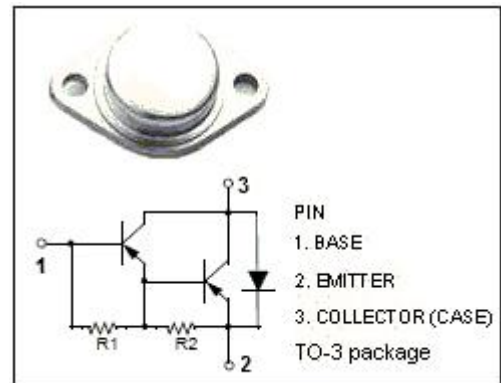
MJ2501

DESCRIPTION

- Built-in Base-Emitter Shunt Resistors
- High DC current gain-
 $h_{FE} = 1000$ (Min) @ $I_C = -5A$
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -80V$ (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use as output devices in complementary general purpose amplifier applications.

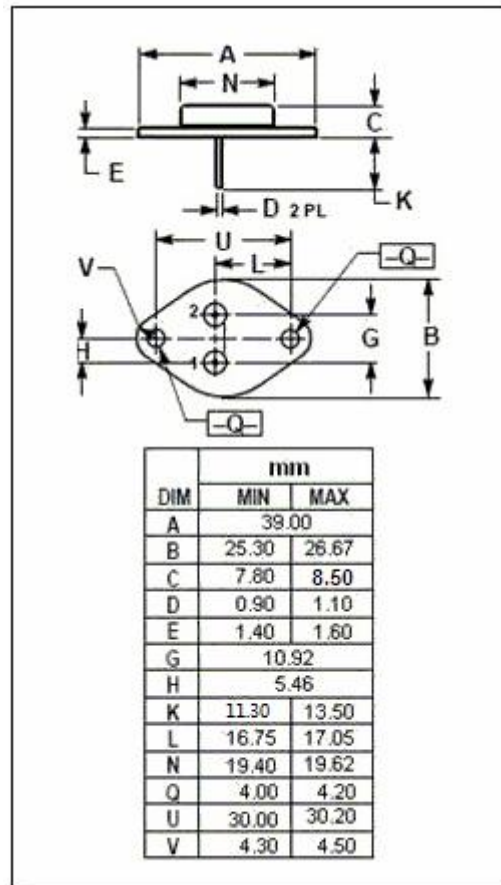


ABSOLUTE MAXIMUM RATINGS($T_C=25^\circ C$)

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	-10	A
I_B	Base Current	-0.2	A
P_C	Collector Power Dissipation@ $T_C=25^\circ C$	150	W
T_J	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature	-55~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.17	$^\circ C/W$



isc Silicon PNP Darlington Power Transistor**MJ2501****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}; I_B = 0$	-80		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -5\text{A}; I_B = -20\text{mA}$		-2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}; I_B = -50\text{mA}$		-4.0	V
$V_{BE(on)}$	Base-Emitter On voltage	$I_C = -5\text{A}; V_{CE} = -3\text{V}$		-3.0	V
I_{CEO}	Collector Cutoff current	$V_{CE} = -40\text{V}; I_B = 0$		-1.0	mA
I_{CBO}	Collector Cutoff current	$V_{CB} = -80\text{V}; I_B = 0, T_C = 150^\circ\text{C}$		-1.0	mA
I_{EBO}	Emitter Cut-off current	$V_{EB} = -5\text{V}; I_C = 0$		-2.0	mA
h_{FE}	DC Current Gain	$I_C = -5\text{A}; V_{CE} = -3\text{V}$	1000		

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