

isc Silicon NPN Darlington Power Transistor

2SD617

DESCRIPTION

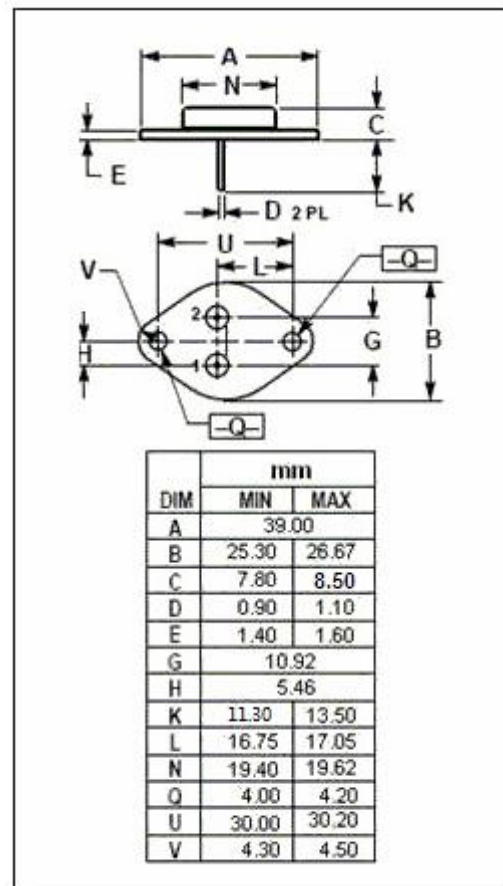
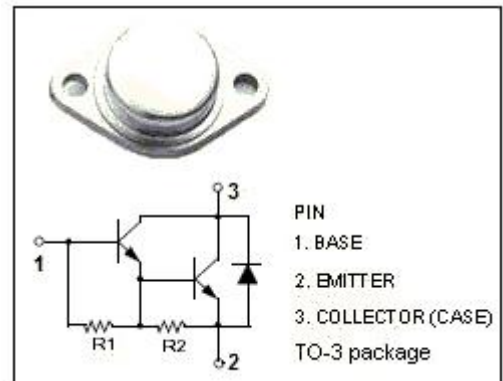
- Low Collector Saturation Voltage
- High DC Current Gain
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio output stages and general amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	8	A
I_{CM}	Collector Current-Peak	12	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 Range	-65~150	$^{\circ}\text{C}$



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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	$I_C=50\text{mA}$; $I_B=0$	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}$; $I_B=40\text{mA}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4\text{A}$; $I_B=40\text{mA}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=120\text{V}$; $I_E=0$			0.2	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=100\text{V}$; $I_B=0$			0.5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$; $I_C=0$			5	mA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=4\text{V}$	2500			
h_{FE-2}	DC Current Gain	$I_C=3\text{A}$; $V_{CE}=4\text{V}$	1000			
h_{FE-2}	DC Current Gain	$I_C=8\text{A}$; $V_{CE}=4\text{V}$	750			