

isc Silicon NPN Darlington Power Transistor

2N6358

DESCRIPTION

- High DC current gain
: $h_{FE} = 1500(\text{Min}) @ I_C = 4A$
- With TO-3 package
- Low collector saturation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

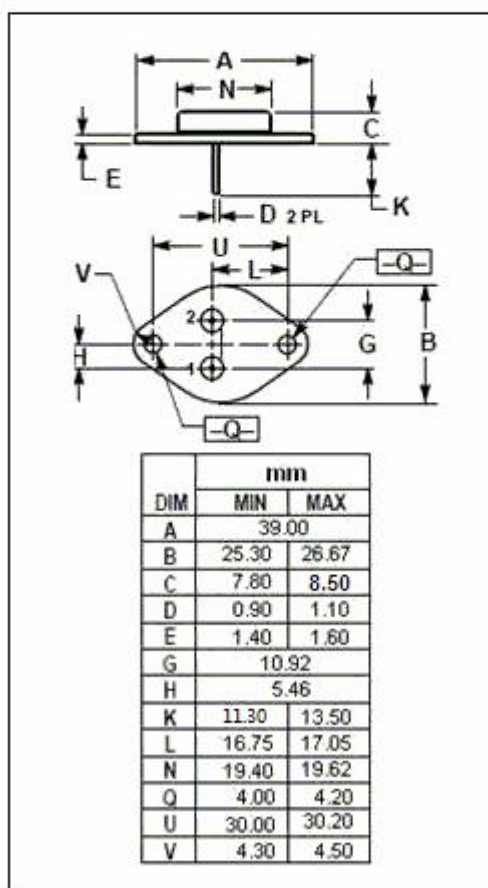
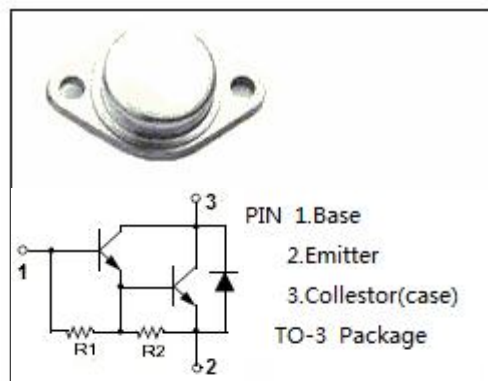
- Designed for general-purpose power amplifier and low -frequency swithing applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	20	A
I_B	Base Current-Continuous	0.5	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ\text{C}$	150	W
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.09	$^\circ\text{C/W}$



isc Silicon NPN Darlington Power Transistor**2N6358****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	60			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C =10A; I _B = 40mA			2.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C =20A; I _B = 1A			4.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C =20A; I _B = 1A			4.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 10A ; V _{CE} = 4V			2.8	V
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 60V; I _B =0			1	mA
I _{CBO}	Collector Base Cutoff Current	V _{CB} =80V; I _E = 0			0.5	mA
h _{FE-1}	DC Current Gain	I _C = 4A; V _{CE} = 5V	1500		10000	
h _{FE-2}	DC Current Gain	I _C = 20A; V _{CE} = 5V	100			

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