

isc Silicon NPN Darlington Power Transistor

YZ21E

DESCRIPTION

- High DC Current Gain-
: $h_{FE} = 2000(\text{Min}) @ I_C = 2A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = 150V(\text{Min})$

APPLICATIONS

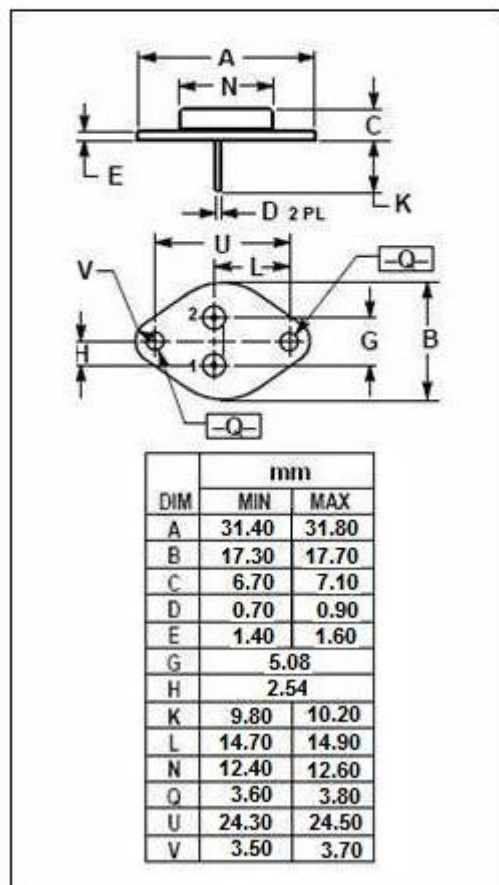
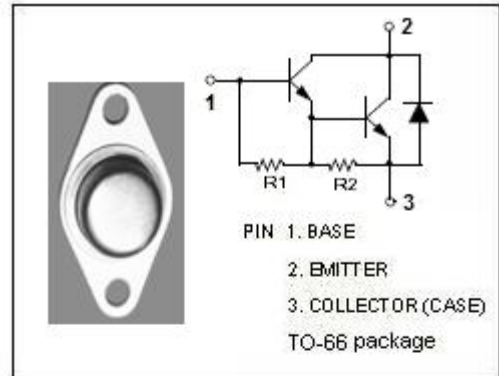
- Designed for general purpose amplifier and low speed switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	50	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.56	$^\circ\text{C/W}$



isc Silicon NPN Darlington Power Transistor**YZ21E****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	$I_C = 30\text{mA}$, $I_B = 0$	150			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 2\text{A}$, $I_B = 10\text{mA}$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 2\text{A}$, $I_B = 10\text{mA}$			2.5	V
I_{CBO}	Collector Cutoff current	$V_{CB} = 150\text{V}$, $I_E = 0$			0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}$; $I_C = 0$			2	mA
h_{FE}	DC Current Gain	$I_C = 2\text{A}$; $V_{CE} = 5\text{V}$	2000		4000	