

Silicon PNP Darlington Power Transistor

YZPST-FW26025A

DESCRIPTION

- High DC Current Gain-
: $h_{FE} = 5000(\text{Min}) @ I_C = -2\text{A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = -100\text{V}(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

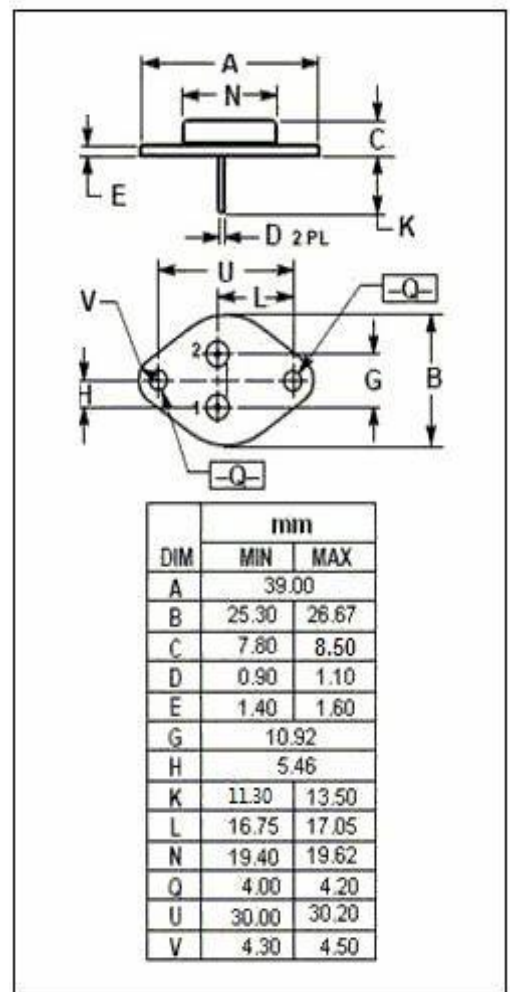
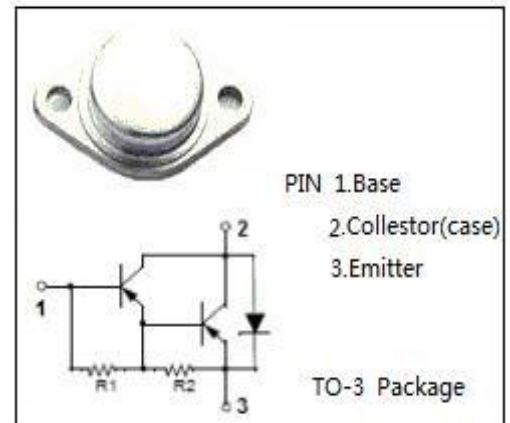
- Designed for linear and switching industrial equipment

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	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-20	A
I_{CM}	Collector Current-Peak	-40	A
I_B	Base Current- Continuous	-0.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	160	W
T_j	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



ELECTRICAL CHARACTERISTICS
T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)} *	Collector-Emitter Sustaining Voltage	I _C = -100mA, I _B = 0	-100			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 = -200mA			-3.0	V
V _{BE(sat)} *	Base-Emitter Saturation Voltage	I _C = -20A, I _B = -200mA			-4	V
V _{BE(on)} *	Base-Emitter On Voltage	I _C = -10A; V _{CE} = -3V			-2.8	V
I _{CEO}	Collector Cutoff current	V _{CE} = -50V, I _B = 0			-1	mA
I _{CEV}	Collector Cutoff current(V _{BE} =-1.5V)	V _{CE} = -100V, I _B = 0			-0.5	mA
		V _{CE} = -100V, I _B = 0, T _C =150℃			-5	
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-2	mA
h _{FE-1} *	DC Current Gain	I _C = -2A; V _{CE} = -3V	5000			
h _{FE-2} *	DC Current Gain	I _C = -10A; V _{CE} = -3V	750		18000	
h _{FE-3} *	DC Current Gain	I _C = -30A; V _{CE} = -3V	200			

*:Pulse test:Pulse width=300us,duty cycle≤2%