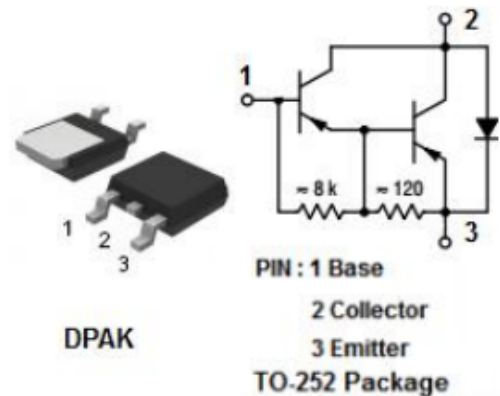


Silicon PNP Darlington Power Transistor

DESCRIPTION

- Low Collector-Emitter saturation voltage
- Lead formed for surface mount applications
- High DC current gain
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



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	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
P_C	Total Power Dissipation @ $T_a=25^\circ\text{C}$	1.75	W
P_C	Collector Power Dissipation $T_C=25^\circ\text{C}$	20	W
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	71.4	$^\circ\text{C}/\text{W}$
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS
T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -30mA; I _B = 0	-100			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C =-4A; I _B = -16mA			-2.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C =-8A; I _B = -80mA			-4.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C =-8A; I _B = -80mA			-4.5	V
V _{BE(ON)}	Base-Emitter voltage	I _C = -4A; V _{CE} = -4V			-2.8	V
I _{CEO}	Collector Cutoff Current	V _{CE} =-50V; I _E = 0			-10	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} =-5V; I _C = 0			-2	mA
h _{FE1}	DC Current Gain	I _C = -4A; V _{CE} =- 4V	1000		12000	
h _{FE2}	DC Current Gain	I _C =-8A; V _{CE} = -4V	100			
f _T	Current-Gain—Bandwidth Product	I _C =-3A; V _{CE} =- 4V	4			MHz
C _{OB}	Output Capacitance	I _E =0; V _{CB} = -10V; f= 1.0MHz		300		pF

Package Dimensions

