

isc Silicon PNP Power Transistor
2SB1316
DESCRIPTION

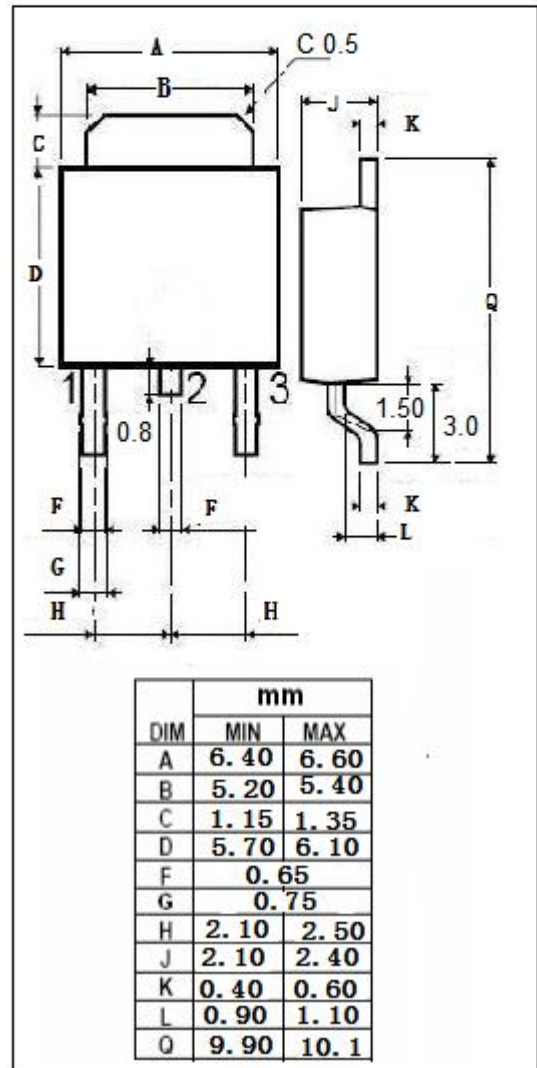
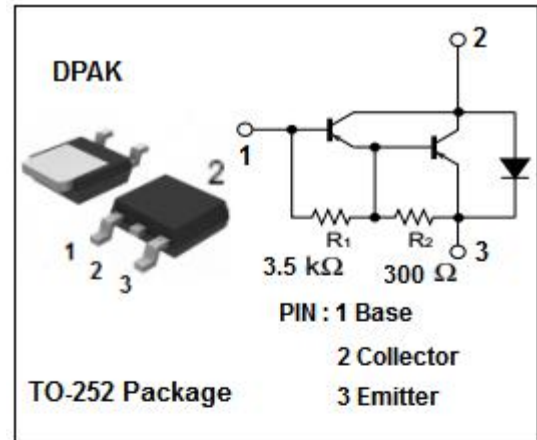
- Darlington connection for high DC current gain
- Built in resistor between base and emitter
- Built in damper diode
- Complementary NPN types:2SD1980
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Motor drivers,LED driver,Power supply

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	-8	V
I_C	Collector Current-Continuous	-2.0	A
I_{CM}	Collector Current-Peak	-3.0	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	10	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
BV _{CBO}	Collector-Base breakdown voltage	I _C =-50μA	-100			V
BV _{CEO}	Collector-Emitter breakdown voltage	I _C =-5mA	-100			V
BV _{EBO}	Emitter-Base breakdown voltage	I _E =-3mA	-10			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -1A; I _B = -1mA			-1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -100V; I _E = 0			-10	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -7V; I _C = 0			-3.0	mA
h _{FE}	DC Current Gain	I _C = -1A; V _{CE} = -2V	1000		10000	
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = -10V; f= 1.0MHz		35		pF
f _T	Current-Gain—Bandwidth Product	I _C = -0.1A; V _{CE} = -5V; f= 100MHz		50		MHz

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