

isc Silicon NPN Power Transistor

2SD1918

DESCRIPTION

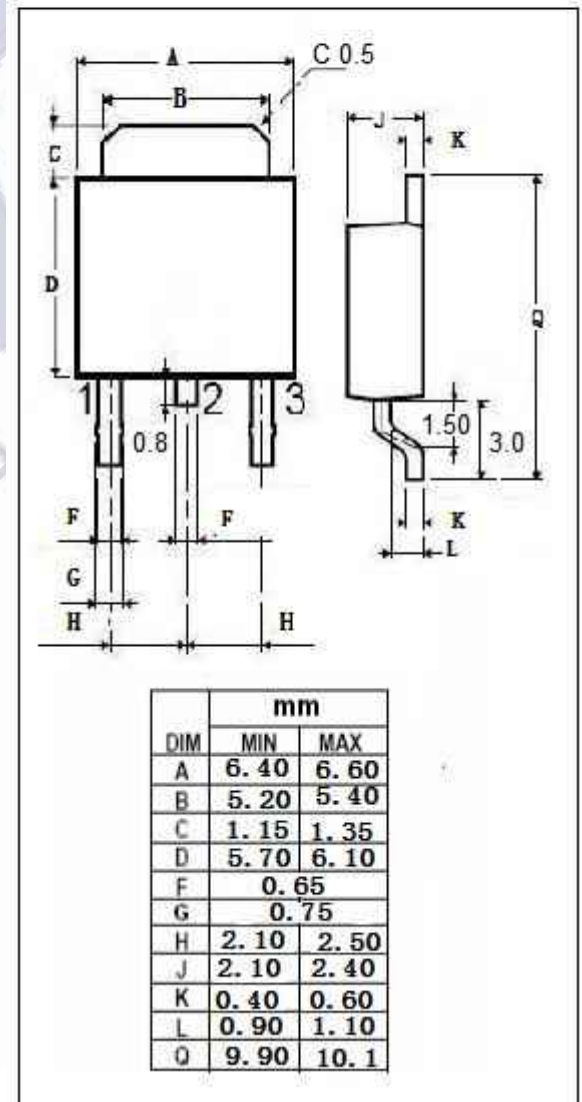
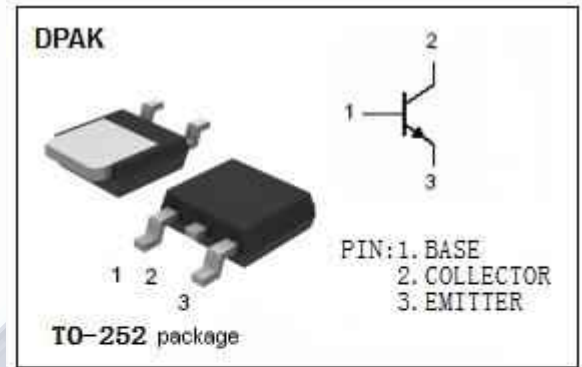
- Suitable for middle power drivers
- High voltage: $V_{CE0}=160V$
- Complementary PNP types: 2SB1275
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Motor drivers, LED driver, Power supply

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1.5	A
I_{CM}	Collector Current-Peak	3.0	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	10	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**2SD1918****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
BV_{CBO}	Collector-Base breakdown voltage	$I_C=50\mu\text{A}$	160			V
BV_{CEO}	Collector-Emitter breakdown voltage	$I_C=1\text{mA}$	160			V
BV_{EBO}	Emitter-Base breakdown voltage	$I_E=50\mu\text{A}$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=100\text{mA}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=120\text{V}; I_E=0$			1.0	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			1.0	μA
h_{FE}	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=5\text{V}$	82		180	
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$		30		pF
f_T^{NOTE}	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=10\text{V}; f=100\text{MHz}$		50		MHz

NOTE:Pulsed

◆ h_{FE} Classifications

P

82-180