

isc NPN Epitaxial Planar Silicon Transistor
2SD1817
DESCRIPTION

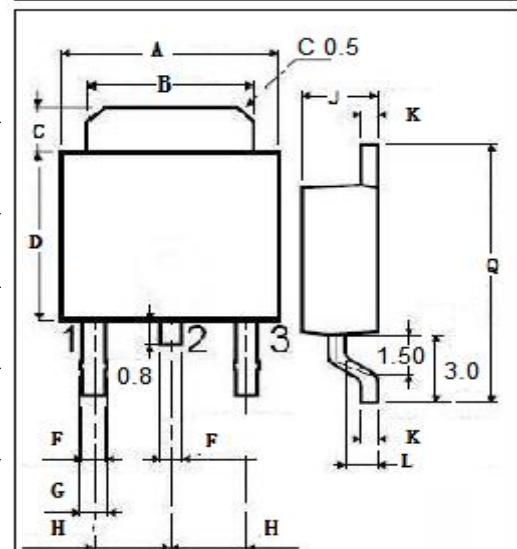
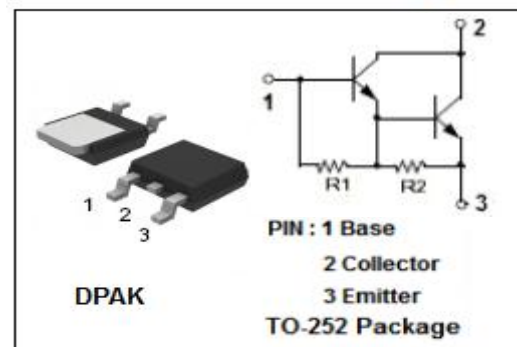
- High DC current gain
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Low Collector Saturation Voltage-
: $V_{CE(\text{sat})} = 1.5V(\text{Max}) @ I_C = 2.0A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Relay drivers, High speed inverters, converters and other general high-current switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	3	A
I_{CP}	Collector Current-Pulse	6	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	15	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _c = 2A; I _B = 4mA			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _c = 2A; I _B = 4mA			2.0	V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _c = 1mA; I _B = 0	80			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _c = 25mA; I _B = 0	60			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 60V; I _E = 0			10	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			2.5	mA
h _{FE1}	DC Current Gain	I _c = 1A; V _{CE} = 2V	2000			
h _{FE2}	DC Current Gain	I _c = 2A; V _{CE} = 2V	1000			

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