

isc Silicon NPN Power Transistor

2SD1899

DESCRIPTION

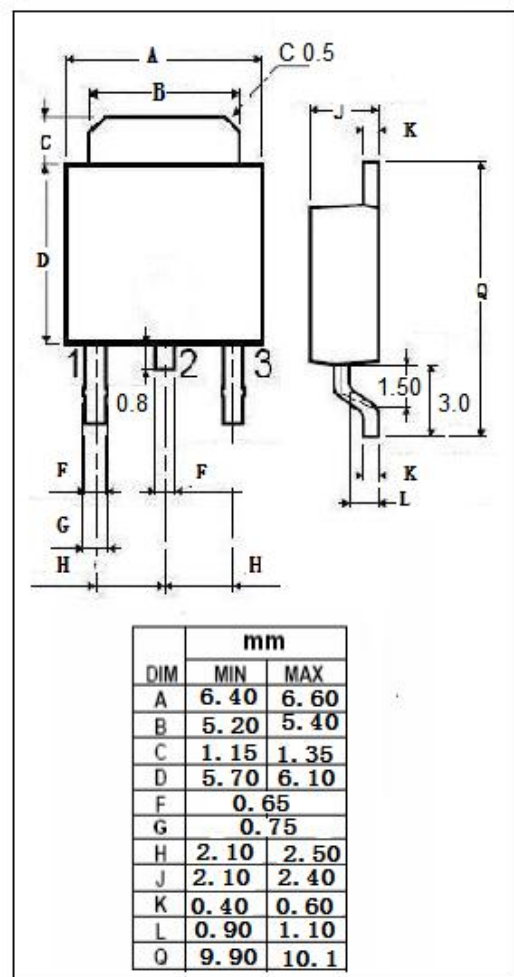
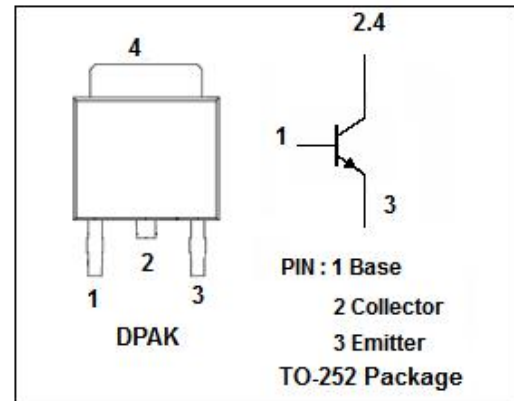
- Low collector saturation voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High transition frequency applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3	A
P_C	Collector Power Dissipation	1.0	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
V _{CE(sat)} ^{NOTE}	Collector-Emitter Saturation Voltage	I _C = 1.5A; I _B = 150mA			0.25	V
V _{BE(sat)} ^{NOTE}	Base-Emitter Saturation Voltage	I _C = 1.5A; I _B = 150mA			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 60V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			10	μ A
h _{FE-1} ^{NOTE}	DC Current Gain	I _C = 0.2A; V _{CE} = 2V	60			
h _{FE-2} ^{NOTE}	DC Current Gain	I _C = 0.6A; V _{CE} = 2V	100		400	
h _{FE-3} ^{NOTE}	DC Current Gain	I _C = 2A; V _{CE} = 2V	50			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1.0MHz		30		pF
f _T	Current-Gain—Bandwidth Product	I _C = 1.5A; V _{CE} = 5V		120		MHz

NOTE:Pulse test PW≤350us,duty cycle ≤2%/pulse

◆ h_{FE-2} Classifications

M	L	K
100-200	160-320	200-400

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