

isc Silicon NPN Power Transistor

2SC3303

DESCRIPTION

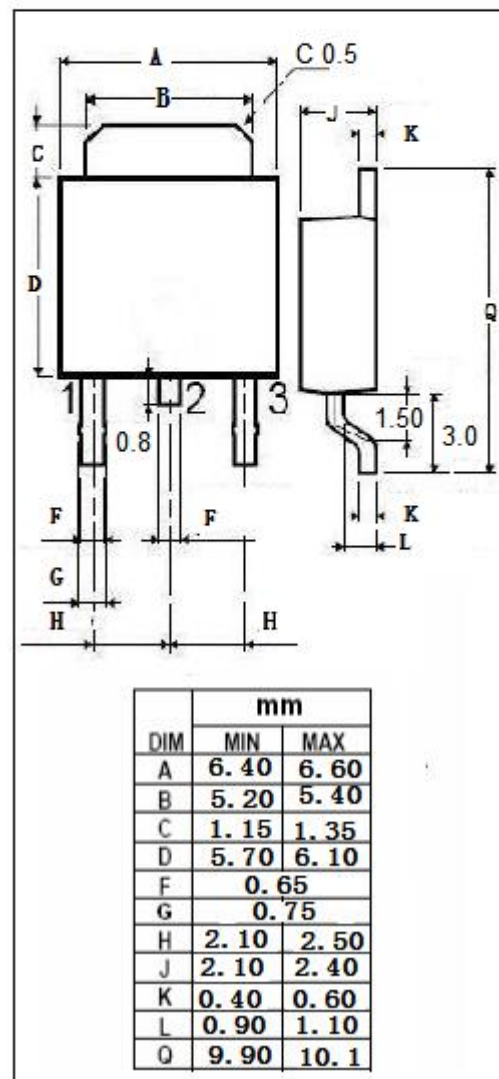
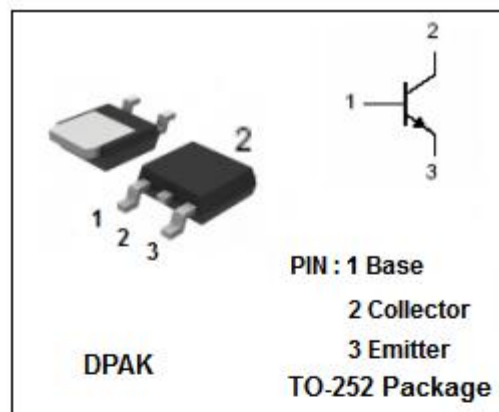
- High switching speed time
- Low collector-to-emitter saturation voltage
- Fast switching speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High 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	80	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
P_C	Collector Power Dissipation	1.0	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SC3303****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 = 3.0A; I _B = 150mA			0.4	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3.0A; I _B = 150mA			1.2	V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 100uA; I _B = 0	100			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; I _B = 0	80			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 100uA; I _C = 0	7			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V; I _E = 0			1	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			1	uA
h _{FE1}	DC Current Gain	I _C = 1A; V _{CE} = 1V	70		240	
h _{FE2}	DC Current Gain	I _C = 3A; V _{CE} = 1V	40			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1.0MHz		80		pF
f _T	Current-Gain—Bandwidth Product	I _C = 1A; V _{CE} = 4V		20		MHz

◆ **h_{FE1} Classifications**

O	Y
70-140	120-240