

isc Silicon NPN Power Transistor

2SC3303

DESCRIPTION

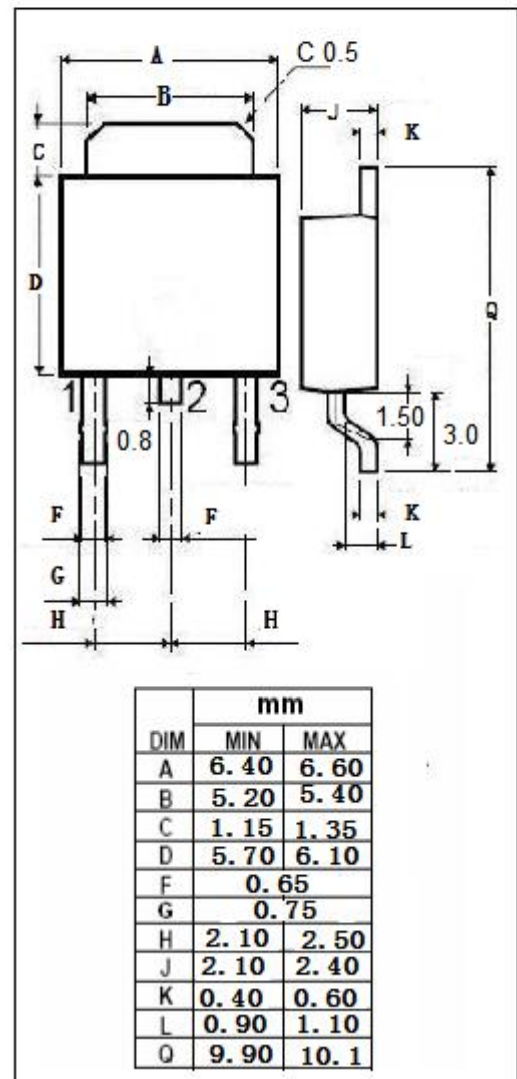
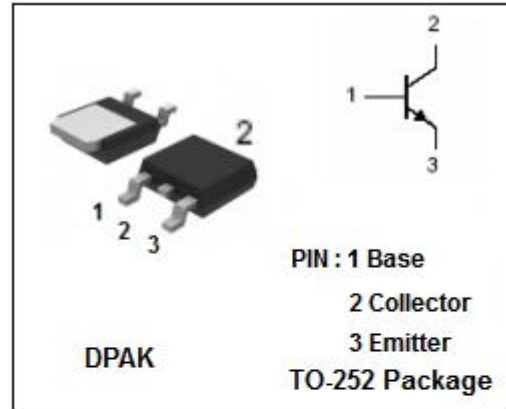
- High switching speed time
- Low collector-to-emitter saturation voltage
- Fast switching speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	100	V
V _{CEO}	Collector-Emitter Voltage	80	V
V _{EB0}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	5	A
I _{CM}	Collector Current-peak	8	A
I _B	Base Current	1	A
P _C	Collector Power Dissipation T _a =25°C	1.0	W
	Collector Power Dissipation T _c =25°C	20	
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



isc Silicon NPN Power Transistor**2SC3303****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 3.0A; I_B= 0.15A$			0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 3.0A; I_B= 0.15A$			1.2	V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C= 100\mu A; I_B= 0$	100			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 10mA; I_B= 0$	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E= 100\mu A; I_C= 0$	7			V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 100V; I_E= 0$			1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 7V; I_C= 0$			1	μA
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