

isc Silicon NPN Power Transistor

2SC5287

DESCRIPTION

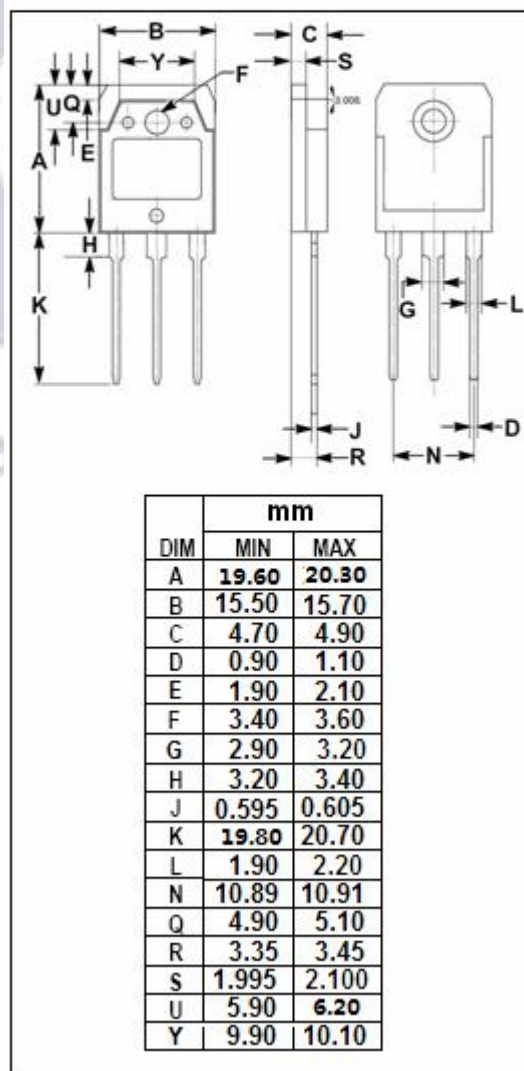
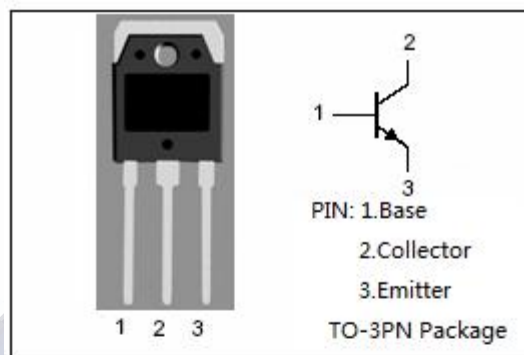
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 550V(\text{Min})$
- High Switching Speed
- High Reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for switching regulator and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	900	V
V_{CEO}	Collector-Emitter Voltage	550	V
V_{EBO}	Emitter-Base voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	2.5	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	80	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SC5287****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA ; I _B = 0	550			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.8A; I _B = 0.36A			0.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1.8A; I _B = 0.36A			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 800V ; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			0.1	mA
h _{FE}	DC Current Gain	I _C = 1.8A ; V _{CE} = 4V	10		25	
f _T	Current-Gain—Bandwidth Product	I _E = -0.35A ; V _{CE} = 12V		6		MHz
C _{OB}	Output Capacitance	V _{CB} = 10V; f _{test} = 1.0MHz		50		pF

Switching times

t _{on}	Turn-on Time	I _C = 1.8A , I _{B1} = 0.27A; I _{B2} = -0.9A R _L = 139 Ω ; V _{CC} = 250V			0.8	μ s
t _{stg}	Storage Time				4.0	μ s
t _f	Fall Time				0.5	μ s