

isc Silicon NPN Power Transistor
2SD1307
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
 $V_{CE0(SUS)} = 350V(\text{Min})$
- High DC current gain
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

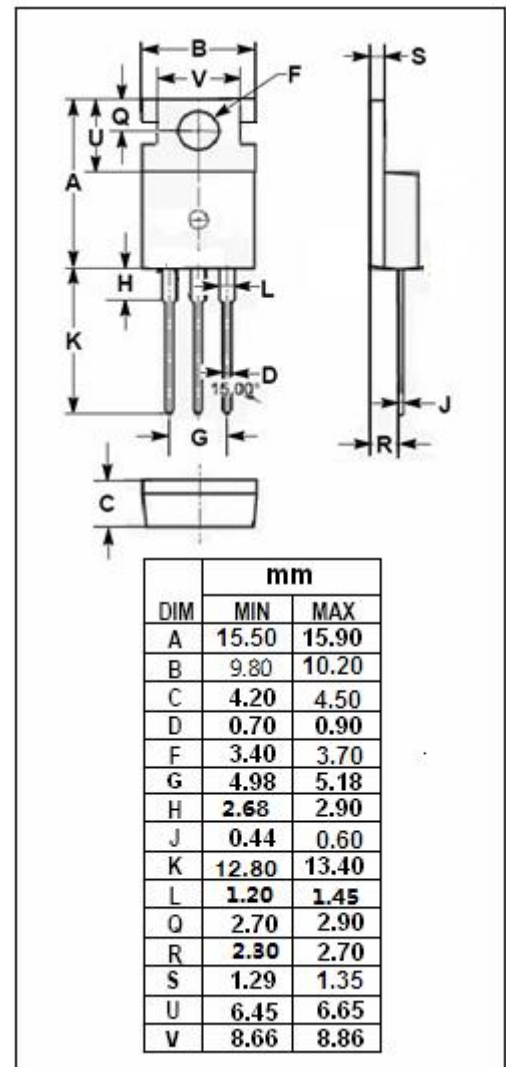
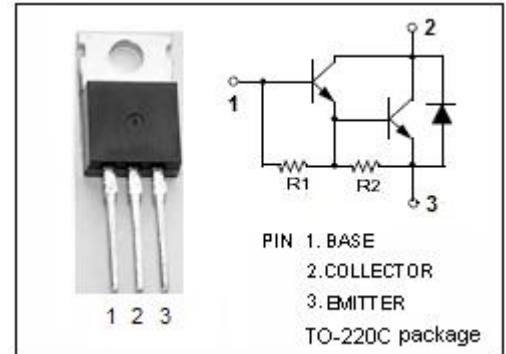
- High ruggedness electronic ignitions
- High voltage ignition coil driver

Absolute maximum ratings($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	350	V
V_{CEO}	Collector-Emitter Voltage	350	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	6	A
I_{CM}	Collector Current-Peak	15	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	35	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.2	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**2SD1307****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA; I _B = 0	350			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4 A; I _B = 400mA			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4 A; I _B = 400mA			2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 500V; I _E = 0			0.1	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 450V; I _B = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5	mA
h _{FE-1}	DC Current Gain	I _C = 2A ; V _{CE} = 2V	1500			
h _{FE-2}	DC Current Gain	I _C = 2A ; V _{CE} = 2V	200			
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 50V, f _{test} = 1MHz		35		pF

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