

isc Silicon NPN Power Transistor

2SC5116

DESCRIPTION

- High Voltage
- High Speed Switching

APPLICATIONS

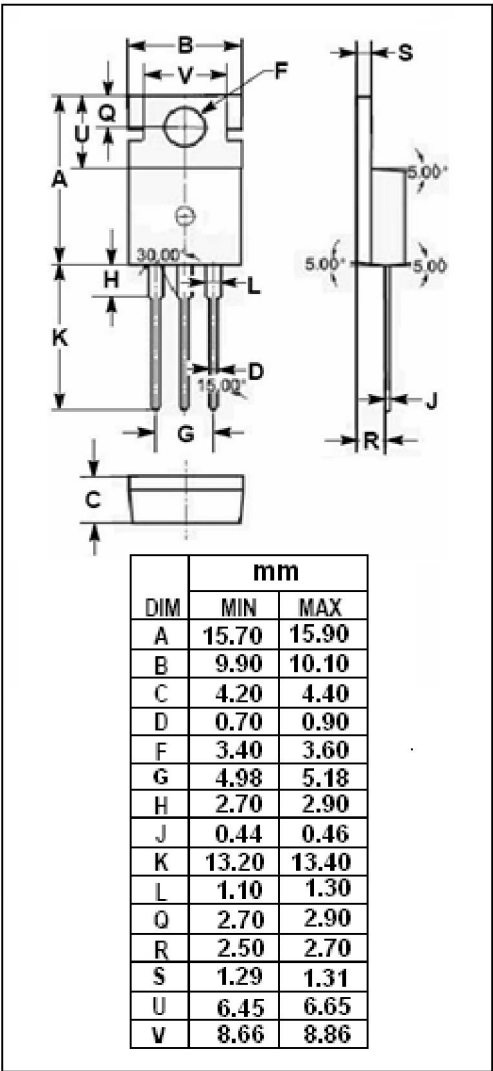
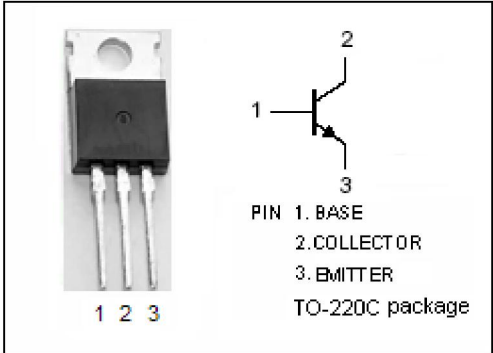
- Converters
- Inverters
- Switching regulators
- Motor control systems

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	700	V
V _{CEO}	Collector-Emitter Voltage	500	V
V _{EBO}	Emitter-Base Voltage	9	V
I _C	Collector Current-Continuous	4	A
I _{CM}	Collector Current-Peak	8	A
P _C	Collector Power Dissipation @T _C =25°C	40	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.67	°C/W



isc Silicon NPN Power Transistor**2SC5116****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 = 5mA; I _B = 0	500			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	700			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 0.8A			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 0.8A			1.3	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 700V; I _E = 0			0.1	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 500V; I _B = 0			1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 9V; I _C = 0			0.1	mA
h _{FE}	DC Current Gain	I _C = 2A; V _{CE} = 5V	10		50	