

ISC Silicon NPN Power Transistor

2SD316

DESCRIPTION

- · Collector-Emitter Breakdown Voltage-
 - : V_{(BR)CEO}= 80V(Min)
- · Low Collector-Emitter Saturation Voltage-
 - : V_{CE(sat)}= 1.0V(Max) @I_C= 5.0A
- · Excellent Safe Operating Area
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

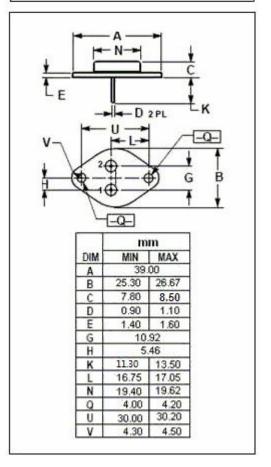
APPLICATIONS

• Designed for high power amplifier and switching applications

3 PIN 1.Base 2.Emitter 3.Collestor(case) TO-3 Package

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

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
Ic	Collector Current-Continuous	7	А
I _{CM}	Collector Current-Peak	12	А
I _B	Base Current-Continuous	3	А
Pc	Collector Power Dissipation @T _c =25℃	80	W
TJ	Junction Temperature	150	$^{\circ}$
T_{stg}	Storage Temperature	-65~150	℃





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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	80		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.5	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 80V; I _B = 0		0.5	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V; I _E = 0		0.1	mA
I _{ЕВО}	Emitter Cutoff Current	V _{EB} = 7.0V; I _C = 0		0.1	mA
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 2V	60	200	
h _{FE-2}	DC Current Gain	Ic= 3A ; Vc= 2V	35		
f _T	Current Gain-Bandwidth Product	I _C = 1A ; V _{CE} = 5V;f= 0.5MHz	12		MHz
Сов	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 0.1MHz		300	pF

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