

isc Silicon NPN Power Transistor

2N4298

DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

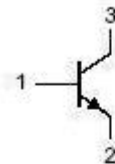
- Designed for switching regulator applications where high frequency and high voltage swings and required

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

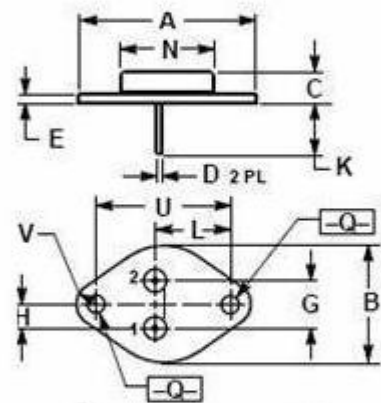
SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	350	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	1	A
P_C	Collector Power Dissipation@ $T_C=25^{\circ}\text{C}$	20	W
T_J	Junction Temperature	-65~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	7.5	$^{\circ}\text{C/W}$



PIN 1. BASE
2. EMITTER
3. COLLECTOR (CASE)
TO-66 package



DIM	mm	
	MIN	MAX
A	31.40	31.80
B	17.30	17.90
C	6.70	7.10
D	0.70	0.90
E	1.40	1.80
G	5.08	
H	2.54	
K	9.80	10.50
L	14.70	14.90
N	12.40	12.70
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

isc Silicon NPN Power Transistor**2N4298****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)} *	Collector-Emitter Sustaining Voltage	I _C =50mA; I _B = 0	350		V
I _{CBO}	Collector Cutoff Current	V _{CE} =500V; I _B = 0		0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0		0.1	mA
V _{CE(sat)} *	Collector-Emitter Saturation Voltage	I _C = 50mA; I _B = 5mA		0.9	V
V _{BE(sat)} *	Base-Emitter Saturation Voltage	I _C =50mA; I _B = 5mA		1.5	V
V _{BE(ON)} *	Base-Emitter On Voltage	I _C =0.1A; V _{CE} = 10V		0.9	V
h _{FE-1} *	DC Current Gain	I _C = 5mA; V _{CE} = 10V	20		
h _{FE-2} *	DC Current Gain	I _C = 50mA; V _{CE} = 10V	25	75	
h _{FE-3} *	DC Current Gain	I _C = 0.1A; V _{CE} = 10V	20		

*:Pulse test:Pulse width=300us,duty cycle≤2%

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