

isc Silicon PNP Power Transistor

NJD1718

DESCRIPTION

- Low Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = -0.5V(\text{Max})(I_C = -1A; I_B = -0.05A)$
- High Switching speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

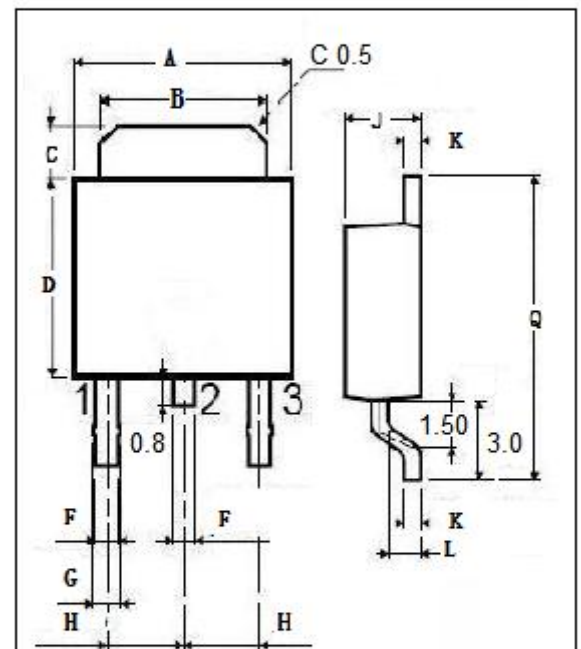
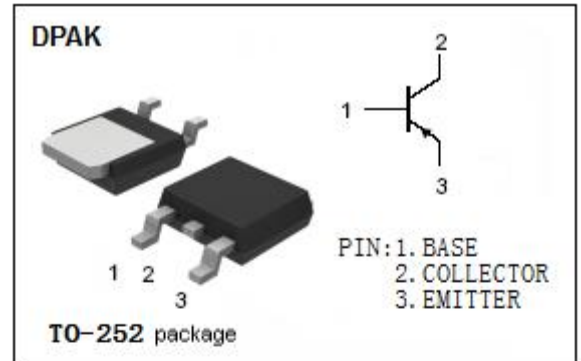
- Designed for high-gain audio amplifier and power Switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	-50	V
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current-Continuous	-2	A
I _{CM}	Collector Current-Peak	-3	A
I _B	Base Current	-0.4	A
P _C	Total Power Dissipation @ T _C =25°C	15	W
	Collector Power Dissipation T _a =25°C	1.68	
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	10	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	89.3	°C/W



DIM	mm	
	MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

isc Silicon PNP Power Transistor**NJD1718****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	-50			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -1A; I _B = -0.05A			-0.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -1A; I _B = -0.05A			-1.2	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -1A ; V _{CE} = -2V			-1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -50V; I _E = 0			-100	nA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C =0			-100	nA
h _{FE}	DC Current Gain	I _C = -0.5A; V _{CE} = -2V	70		240	
		I _C = -1.5A; V _{CE} = -2V	40			
f _T	Current-Gain—Bandwidth Product	I _C = -0.5A ; V _{CE} = -2V		80		MHZ
C _{OB}	Output Capacitance	I _E =0; V _{CB} =-10V; f= 0.1MHz		33		pF

Pulse Test: PW=300μs, Duty Cycle≤2.0%

Switching Times; Resistive Load

t _{on}	Tur-on Time	I _C = -1A; V _{CC} = -30V;		55		ns
t _s	Storage Time			320		ns
t _f	Fall Time			40		ns