

isc Silicon NPN Power Transistors

2SD427

DESCRIPTION

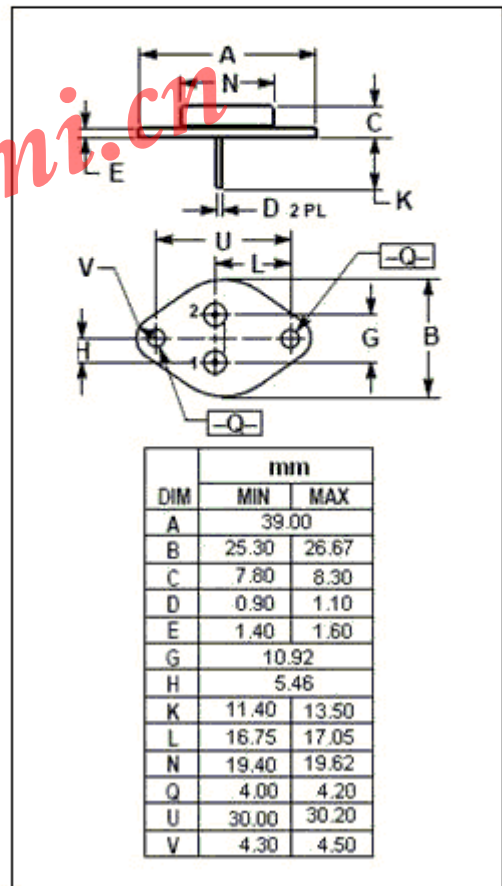
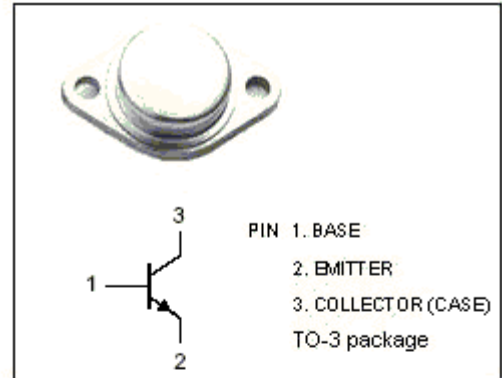
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 120V(\text{Min})$
- High Power Dissipation-
: $P_C = 80W(\text{Max}) @ T_C = 25^\circ\text{C}$
- Complement to Type 2SB557

APPLICATIONS

- Designed for power amplifier applications.
- Recommended for 50W high-fidelity audio frequency amplifier output stage.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_E	Emitter Current-Continuous	-8	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	80	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 0.1A; I _B = 0	120			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10mA; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			2.5	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 5A; V _{CE} = 5V			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 60V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 5V	40		140	
h _{FE-2}	DC Current Gain	I _C = 5A; V _{CE} = 5V	20			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1MHz		170		pF
f _T	Current-Gain—Bandwidth Product	I _C = 1A; V _{CE} = 5V		5		MHz

◆ h_{FE-1} Classifications

R	O
40-80	70-140