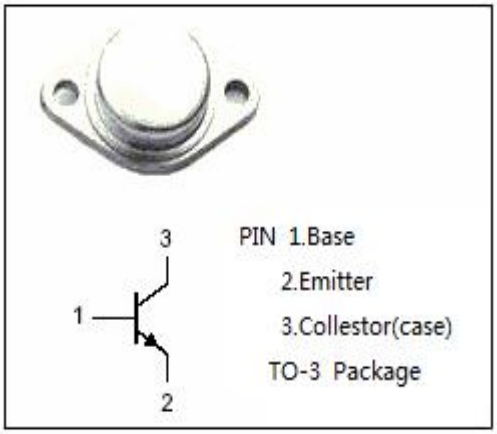
isc Silicon NPN Power Transistors — 2SD425



DESCRIPTION

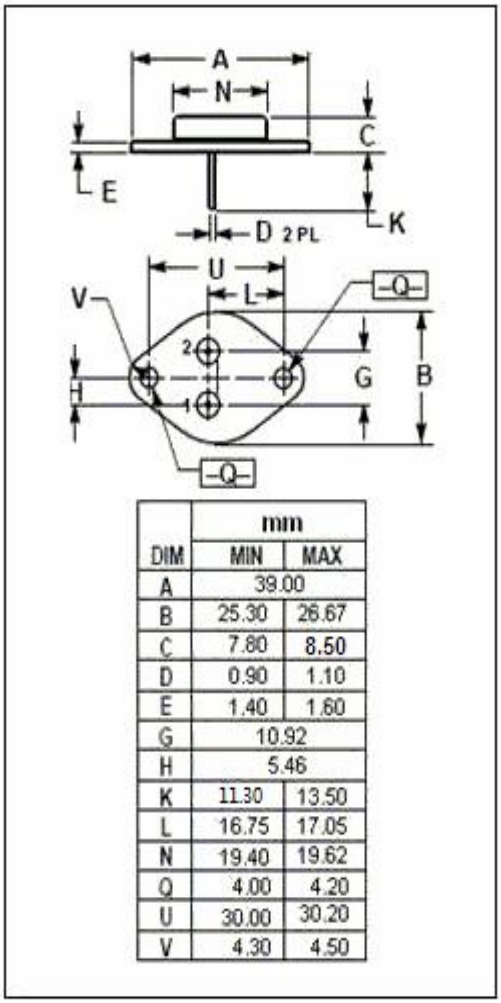
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 140V(Min)
- High Power Dissipation-
  : P_C= 100W(Max)@T_C=25℃
- Complement to Type 2SB555
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	140	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	12	A
I_E	Emitter Current-Continuous	12	A
P_C	Collector Power Dissipation @T_C=25℃	100	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	140			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 0.7A			3.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 7A; V_{CE}= 5V			2.5	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}	DC Current Gain	I_C= 2A; V_{CE}= 5V	40		140	
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f= 1MHz		330		pF
f_T	Current-Gain—Bandwidth Product	I_E= 2A; V_{CE}= 5V		6		MHz

◆ **h_{FE} Classifications**

R	O
40-80	70-140