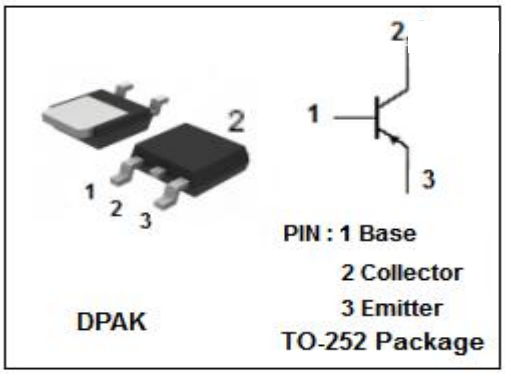
isc Silicon NPN Power Transistor — 2SA1412-Z

DESCRIPTION

- With TO-252(DPAK) packaging
- Excellent linearity of h_{FE}
- Low collector-to-emitter saturation voltage
- Fast switching speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

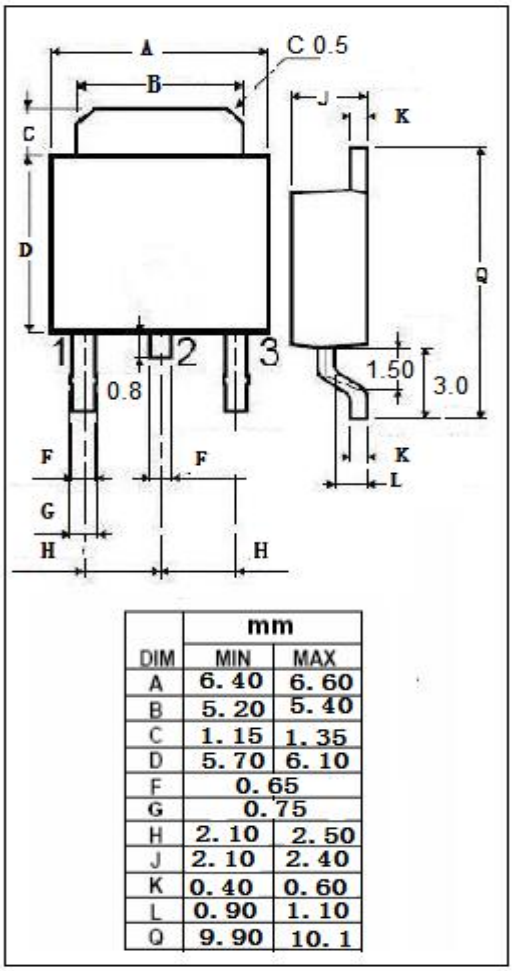


APPLICATIONS

- Relay drivers
- High-speed inverters
- Converters
- High current switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-500	V
V_{CEO}	Collector-Emitter Voltage	-400	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-2	A
P_C	Collector Power Dissipation @T_C=25℃	2	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=-1mA; I_B=0	-500			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=-10mA; I_B=0	-400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -1.0A; I_B=- 0.2A			-1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -1.0A; I_B=- 0.2A			-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -500V; I_E= 0			-10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -7V; I_C=0			-10	μA
h_{FE-1}	DC Current Cain	I_C= -100mA ; V_{CE}= -5V	40		120	
h_{FE-2}	DC Current Cain	I_C= -1A ; V_{CE}= -5V	6			