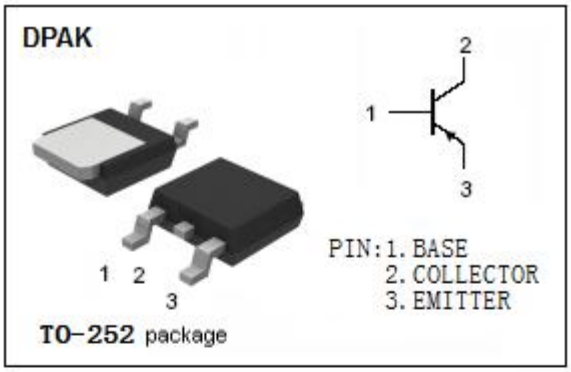
isc Silicon PNP Power Transistor — 2SA1261-Z



DESCRIPTION

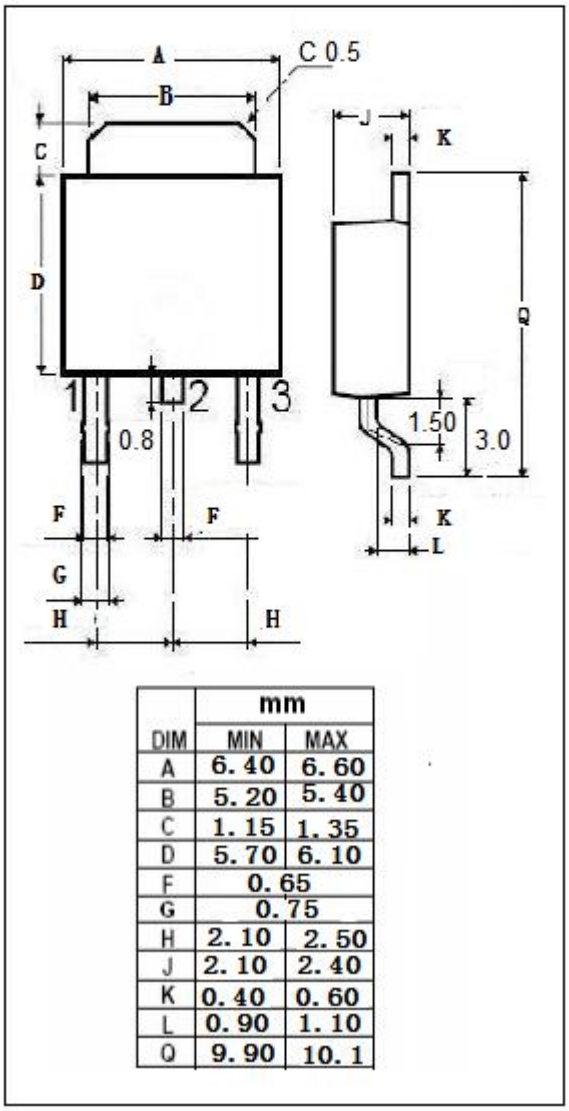
- High switching speed
- Low Collector-Emitter Saturation Voltage-
  : VCE(sat)= -0.6V(Max)@ IC= -5A
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- Complementary to 2SC3157

APPLICATIONS

- High speed high voltage switching industrial use
- DC/DC converters

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-10	A
I_{CM}	Collector Current-Peak	-20	A
I_B	Base Current-Continuous	-3.5	A
P_C	Total Power Dissipation @ TC=25℃	20	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	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= -5.0A; I_B= -0.5A, L=1mH	-100		V
$V_{CEX(SUS)-1}$	Collector-Emitter Sustaining Voltage	I_C= -5.0A ; I_{B1}=-I_{B2}= -0.5A, $V_{BE(OFF)}$=5.0V, L=180μH,clamped	-100		V
$V_{CEX(SUS)-2}$	Collector-Emitter Sustaining Voltage	I_C= -10A ; I_{B1}= -1.0A; I_{B2}= -0.5A, $V_{BE(OFF)}$= 5.0V, L= 180μH,clamped	-100		V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C= -5.0A; I_B= -0.5A		-0.6	V
$V_{BE(sat)}$*	Base-Emitter Saturation Voltage	I_C= -5.0A; I_B= -0.5A		-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -100V; I_E= 0		-10	μA
I_{CER}	Collector Cutoff Current	V_{CE}= -100V; R_{BE}= 51Ω,T_a=125℃		-1.0	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= -100V; $V_{BE(off)}$= -1.5V V_{CE}= -100V; $V_{BE(off)}$= -1.5V, T_a=125℃		-10 -1.0	μA mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0		-10	μA
h_{FE-1}*	DC Current Gain	I_C= -0.5A; V_{CE}= -5V	40	200	
h_{FE-2}*	DC Current Gain	I_C= -3.0A; V_{CE}= -5V	40	200	
h_{FE-3}*	DC Current Gain	I_C= -5.0A; V_{CE}= -5V	20		
Switching times					
t_{on}	Turn-on Time	I_C= -5.0A, R_L= 10Ω, I_{B1}= -I_{B2}= -0.5A, V_{CC}≈-50V		0.5	μs
t_{stg}	Storage Time			1.5	μs
t_f	Fall Time			0.5	μs

*:PW≤350us,duty cycle≤2%

◆ h_{FE-2} Classifications

M	L	K
40-80	60-120	100-200

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