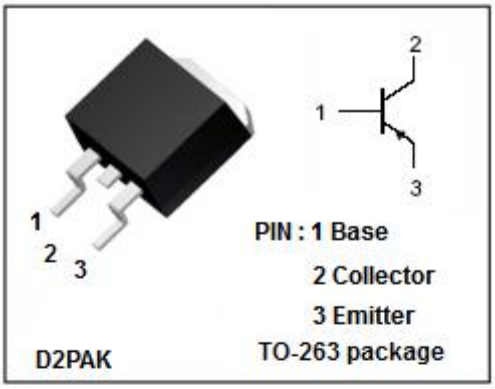
isc Silicon PNP Power Transistor — 2SA1069-Z

DESCRIPTION

- Low Collector Saturation Voltage
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

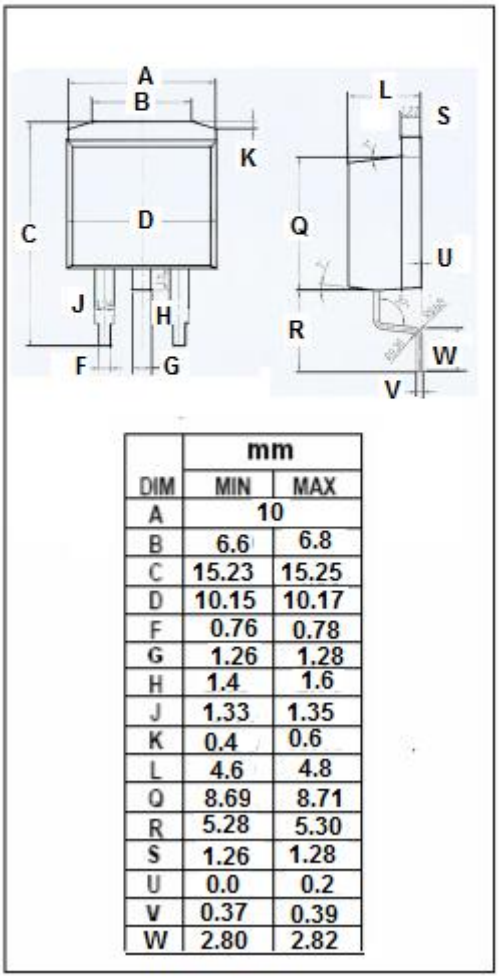
APPLICATIONS

- Designed for high-speed switching, and is ideal for use as a driver in devices such as switching regulators,DC/DC converters, and high frequency power amplifiers.



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-12	V
I_C	Collector Current-Continuous	-5	A
I_{CM}	Collector Current-Peak	-10	A
I_B	Base Current-Continuous	-2.5	A
P_C	Collector Power Dissipation @ T_a=25℃	1.5	W
	Total Power Dissipation @ T_C=25℃	30	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

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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= -3.0A ; I_B= -0.3A, L=1mH	-60		V
$V_{CEX(SUS)-1}$	Collector-Emitter Sustaining Voltage	I_C= -3.0A ; I_{B1}=-I_{B2}= -0.3A, $V_{BE(OFF)}$=5.0V, L=180μH,clamped	-60		V
$V_{CEX(SUS)-2}$	Collector-Emitter Sustaining Voltage	I_C= -6.0A ; I_{B1}= -0.6A; I_{B2}= -0.3A, $V_{BE(OFF)}$= 5.0V, L= 180μH,clamped	-60		V
$V_{CE(sat)}$NOTE	Collector-Emitter Saturation Voltage	I_C= -3.0A; I_B= -0.3A		-0.6	V
$V_{BE(sat)}$NOTE	Base-Emitter Saturation Voltage	I_C= -3.0A; I_B= -0.3A		-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -60V; I_E= 0		-10	μA
I_{CER}	Collector Cutoff Current	V_{CE}= -60V; R_{BE}= 51Ω , T_a=125℃		-1.0	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= -60V; $V_{BE(off)}$= -1.5V V_{CE}= -60V; $V_{BE(off)}$= -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}NOTE	DC Current Gain	I_C= -0.3A; V_{CE}= -5V	40		
h_{FE-2}NOTE	DC Current Gain	I_C= -3.0A; V_{CE}= -5V	40	200	
Switching times					
t_{on}	Turn-on Time	I_C= -3.0A ,R_L= 17Ω , I_{B1}= -I_{B2}= -0.3A,V_{CC}≈-50V		0.5	μs
t_{stg}	Storage Time			2.5	μs
t_f	Fall Time			0.5	μs

NOTE:Pulse test PW≤350us,duty cycle ≤2%

◆ h_{FE-2} Classifications

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

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