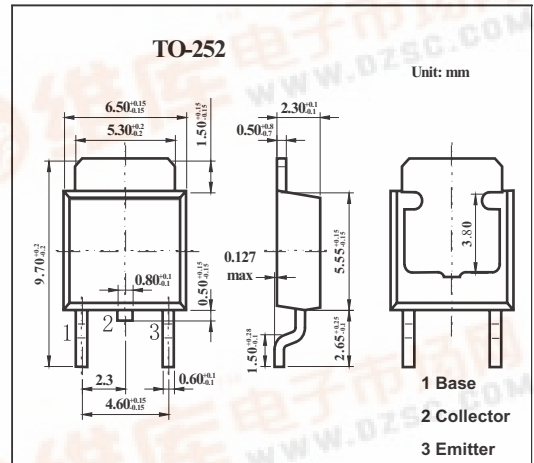


SMD Type Transistors

Silicon Power Transistors
2SA1615-Z



Features

- Large current capacity.
- High hFE and low collector saturation voltage.

Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-30	V
Collector-emitter voltage	V _{CE0}	-20	V
Emitter-base voltage	V _{EB0}	-10	V
Collector current	I _c	-10	A
Collector current pulse	I _{cp} *	-15	A
Base current	I _B	-0.5	A
Total power dissipation	P _T	1.0	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* PW ≤ 10 ms, duty cycle ≤ 50%

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I _{cBO}	V _{CB} = -20V, I _E = 0			-1	μA
Emitter cutoff current	I _{EBO}	V _{EB} = -8V, I _c = 0			-1	μA
DC current gain *	h _{FE}	V _{CE} = -2V, I _c = -0.5A	200		600	
		V _{CE} = -2.0 V, I _c = -4.0 A	160			
Collector-emitter saturation voltage *	V _{CE(sat)}	I _c = -4A, I _B = -0.05A		-0.2	-0.25	V
Base saturation voltage *	V _{BE(sat)}	I _c = -4A, I _B = -0.05A		-0.9	-1.2	
Gain bandwidth product	f _t	V _{CE} = -5V, I _E = 1.5A		180		MHz
Output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1.0MHz		220		pF
Turn-on time	t _{on}	I _c = -5.0 A, I _{B1} = -I _{B2} = 0.125 A, R _L = 2.0 Ω, V _{CC} = -10 V		80		ns
Storage time	t _{stg}			300		ns
Fall time	t _f			60		ns

* Pulse test: t_p ≤ 350 μs; d ≤ 0.02.

hFE Classification

Marking	L	K
hFE	200~400	300~600

