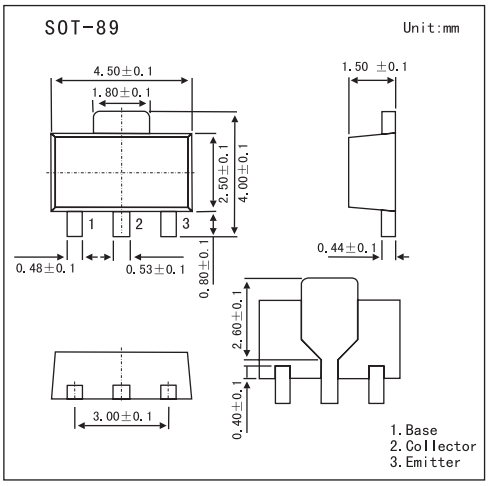
NPN Silicon Epitaxial Transistor

2SD1615A



■ Features

- World Standard Miniature Package.
- Low $V_{CE(sat)}$ $V_{CE(sat)}$ = 0.15 V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	6	V
Collector current (DC)	I_C	1	A
Collector Current (pulse) *1	I_C	2	A
Total power dissipation at 25℃ Ambient Temperature*2	P_T	2.0	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1 Pulse Test PW ⩽ 10ms, Duty Cycle ⩽ 50%.

*2 When mounted on ceramic substrate of 16 cm^2X 0.7 mm

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 120 V, I_E = 0 A			100	nA
Emitter cutoff current	I_{EBO}	V_{EB} = 6.0 V, I_C = 0 A			100	nA
DC current gain *	h_{FE}	V_{CE} = 2.0 V, I_C = 100 mA	135		400	
Collector saturation voltage *	$V_{CE(sat)}$	I_C = 1 A, I_B = 50 mA		0.15	0.3	V
Base saturation voltage *	$V_{BE(sat)}$	I_C = 1 A, I_B = 50 mA		0.9	1.2	V
Base-emitter voltage *	V_{BE}	V_{CE} = 2.0 V, I_C = 50 mA	600		700	mV
Gain bandwidth product	f_T	V_{CE} = 2.0 V, I_E = -100 mA	80	160		MHz
Output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1.0 MHz		19		pF

* Pulsed: PW ⩽ 350 μs, duty cycle ⩽ 2%

■ h_{FE} Classification

Marking	GQ	GP
hFE	135～270	200～400