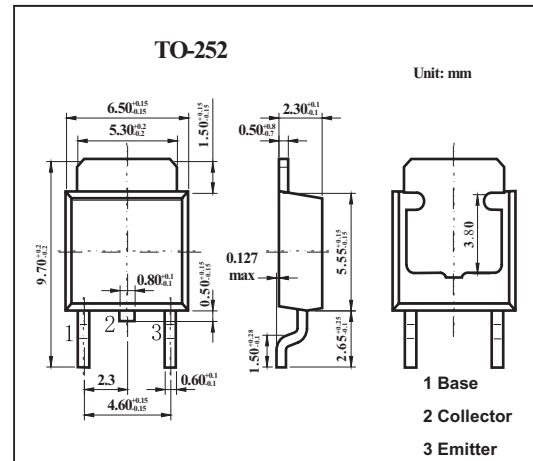


Silicon NPN Triple Diffused Type Transistor

2SC4616

■ Features

- Large current capacity ($I_C=2A$)
- High blocking voltage ($V_{CEO} \geq 400V$)

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	400	V
Collector to emitter voltage	V_{CEO}	400	V
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	4	A
Collector current	I_C	2	A
Collector power dissipation $T_C=25^\circ C$	P_C	1	W
		15	W
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

2SC4616

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off Current	I_{CBO}	$V_{CB}=300V, I_E=0$			1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4V, I_C=0$			1	μA
DC Current Gain	h_{FE}	$V_{CE}=10V, I_C=100mA$	40		200	
Gain-Bandwidth product	f_T	$V_{CE}=10V, I_C=100mA$		60		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			1	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$			1	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	400			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	400			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Output capacitance	C_{ob}	$V_{CB}=30V, f=1MHz$		15		pF
Turn-ON Time	t_{on}	 $P_W = 20\mu s$ $DC \leq 1\%$ I_{B1} I_{B2} $V_{BE} = 5V$ $V_{CE} = 150V$ $10I_{B1} = -10I_{B2} = I_C = 500mA$ $R_C = 300\Omega, R_B = 20\Omega, at I_C = 500mA$		0.085		μs
Storage Time	t_{stg}			4		
Fall Time	t_r			0.6		

■ hFE Classification

TYPE	C	D	E
hFE	40 to 80	60 to 120	100 to 200