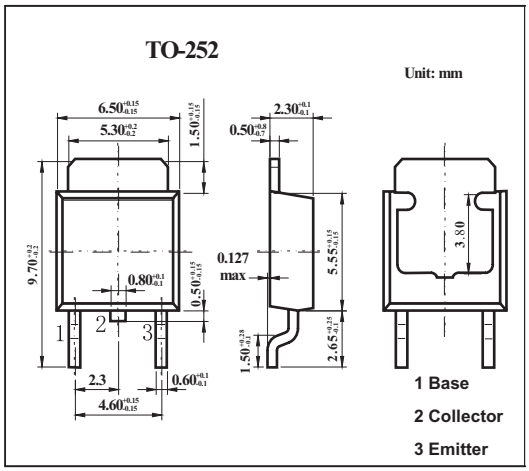
Silicon NPN Triple Diffused Type Transistor

2SC4616



■ Features

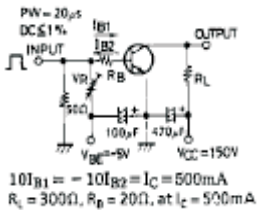
- Large current calcity (I_C=2A)
- High blocking voltage(V_{CEO}≥400V)

■ Absolute Maximum Ratings Ta = 25℃

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	P_C	1	W
TC=25℃		15	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

2SC4616

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	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=10μA,I_E=0	400			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA,R_{BE}=∞	400			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	5			V
Output capacitance	Cob	V_{CB}=30V,f=1MHz		15		pF
Turn-ON Time	t_{on}	 $10I_{B1} = -10I_{B2} = I_C = 500mA$ $R_L = 300\Omega$, $R_B = 20\Omega$, at $I_C = 500mA$		0.085		μs
Storage Time	t_{stg}			4		
Fall Time	t_f			0.6		

■ h_{FE} Classification

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