

2SD2216J

Silicon NPN epitaxial planar type

For general amplification

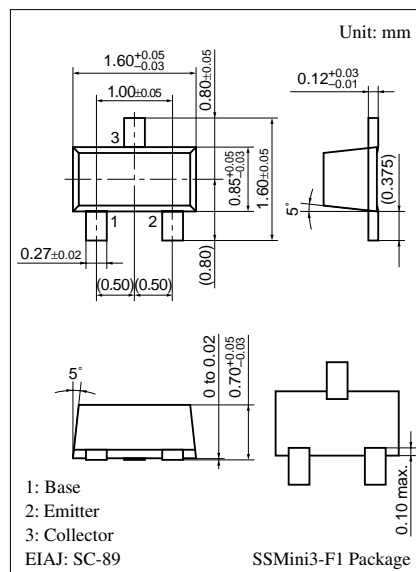
Complementary to 2SB1462J

■ Features

- High forward current transfer ratio h_{FE}
- Low collector to emitter saturation voltage $V_{CE(sat)}$
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

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

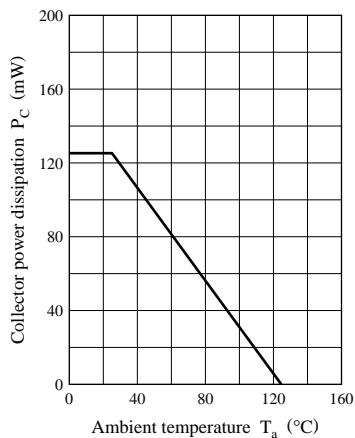
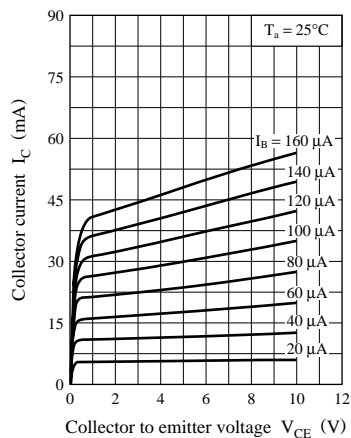
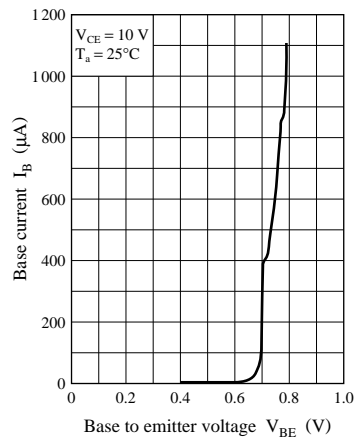
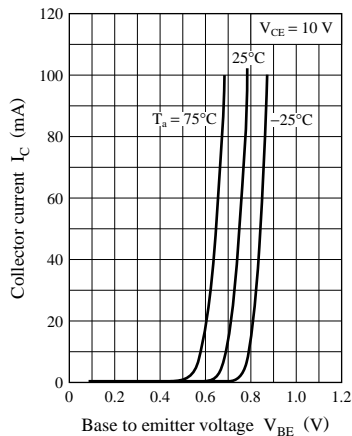
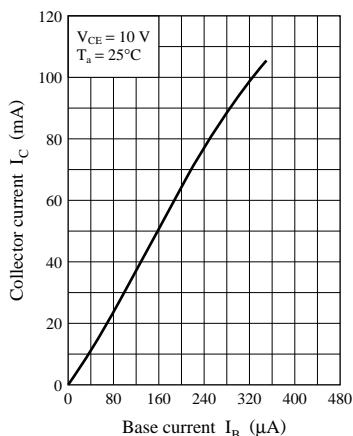
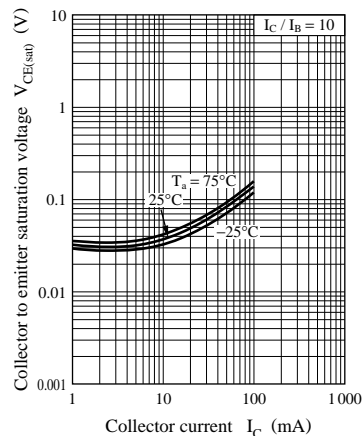
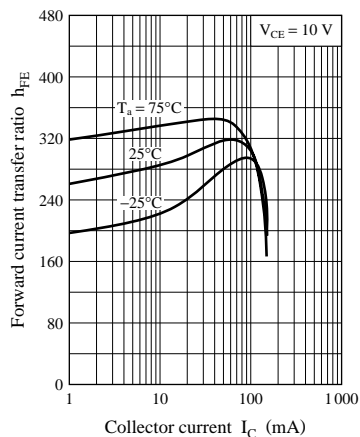
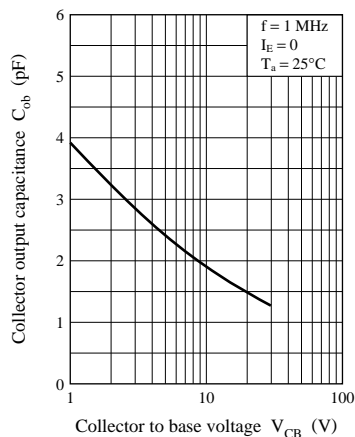
Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	7	V
Peak collector current	I_{CP}	200	mA
Collector current	I_C	100	mA
Collector power dissipation	P_C	125	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$



Marking symbol: Y

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 20\text{ V}, I_E = 0$			0.1	μA
	I_{CEO}	$V_{CE} = 10\text{ V}, I_B = 0$			100	
Collector to base voltage	V_{CBO}	$I_C = 10\text{ }\mu\text{A}, I_E = 0$	60			V
Collector to emitter voltage	V_{CEO}	$I_C = 2\text{ mA}, I_B = 0$	50			V
Emitter to base voltage	V_{EBO}	$I_E = 10\text{ }\mu\text{A}, I_C = 0$	7			V
Forward current transfer ratio	h_{FE1}	$V_{CE} = 10\text{ V}, I_C = 2\text{ mA}$	180		390	
	h_{FE2}	$V_{CE} = 2\text{ V}, I_C = 100\text{ mA}$	90			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{ mA}, I_B = 10\text{ mA}$		0.1	0.3	V
Transition frequency	f_T	$V_{CB} = 10\text{ V}, I_E = -2\text{ mA}, f = 200\text{ MHz}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		3.5		pF

$P_C - T_a$  $I_C - V_{CE}$  $I_B - V_{BE}$  $I_C - V_{BE}$  $I_C - I_B$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $C_{ob} - V_{CB}$ 

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