

Power Transistors



2SD2215, 2SD2215A

Silicon NPN triple diffusion planar type

For power amplification

Features

- High collector to base voltage V_{CBO}
- I type package enabling direct soldering of the radiating fin to the printed circuit board, etc. of small electronic equipment.

Absolute Maximum Ratings ($T_C=25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	2SD2215	350	V
	2SD2215A	400	
Collector to emitter voltage	2SD2215	250	V
	2SD2215A	300	
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	1.5	A
Collector current	I_C	0.75	A
Collector power dissipation	$T_C=25^\circ\text{C}$	15	W
	$T_a=25^\circ\text{C}$	1.3	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_C=25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	2SD2215	$V_{CE} = 350\text{V}, V_{BE} = 0$			1	mA
	2SD2215A				1	
Collector cutoff current	2SD2215	$V_{CE} = 150\text{V}, I_B = 0$			1	mA
	2SD2215A				1	
Emitter cutoff current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			1	mA
Collector to emitter voltage	2SD2215	$I_C = 30\text{mA}, I_B = 0$			250	V
	2SD2215A				300	
Forward current transfer ratio	h_{FE1}^*	$V_{CE} = 10\text{V}, I_C = 0.3\text{A}$	70		250	
		$V_{CE} = 10\text{V}, I_C = 1\text{A}$	10			
Base to emitter voltage	V_{BE}	$V_{CE} = 10\text{V}, I_C = 1\text{A}$			1.5	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 0.2\text{A}$			1	V
Transition frequency	f_T	$V_{CE} = 5\text{V}, I_C = 0.5\text{A}, f = 10\text{MHz}$		30		MHz
Turn-on time	t_{on}	$I_C = 1\text{A}, I_{B1} = 0.1\text{A}, I_{B2} = -0.1\text{A}, V_{CC} = 50\text{V}$		0.5		μs
Storage time	t_{stg}			2		μs
Fall time	t_f				0.5	



