

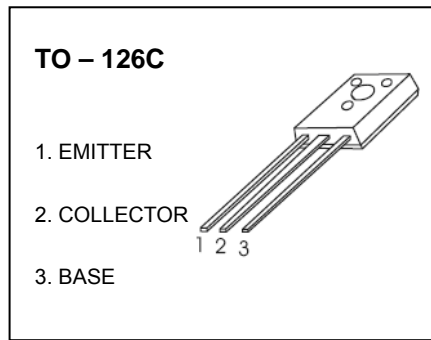


TO-126C Plastic-Encapsulate Transistors

2SD668/2SD668A TRANSISTOR (NPN)

FEATURES

- Low Frequency Power Amplifier Complementary Pair with 2SB649/A



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	180	V
V _{CEO}	Collector-Emitter Voltage	2SD668	120
		2SD668A	160
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	0.05	A
P _C	Collector Power Dissipation	1	W
R _{θJA}	Thermal Resistance From Junction To Ambient	125	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10μA, I _E =0	180			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	2SD668	120		V
			2SD668A	160		
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =160V, I _E =0			10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			1	μA
DC current gain	h _{FE(1)}	V _{CE} =5V, I _C =10mA	2SD668	60	320	
			2SD668A	60	200	
	h _{FE(2)}	V _{CE} =5V, I _C =1mA	30			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =30mA, I _B =3mA			2	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _C =10mA			1.5	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		3.5		pF
Transition frequency	f _T	V _{CE} =10V, I _C =10mA		140		MHz

CLASSIFICATION OF h_{FE(1)}

TYPE	2SD668A		
	2SD668		
RANK	B	C	D
RANGE	60-120	100-200	160-320