



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-126C Plastic-Encapsulate Transistors

2SD669

2SD669A

TRANSISTOR (NPN)

FEATURES

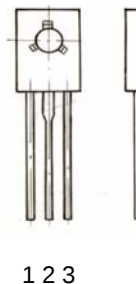
Power dissipation

MAXIMUM RATINGS* $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector- Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	2SD669	V
		2SD669A	
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1.5	A
P_C	Collector Dissipation	1	mW
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

TO-126C

1. EMITTER
2. COLLECTOR
3. BASE



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}$, $I_E=0$	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}$, $I_B=0$	2SD669			V
			2SD669A			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=160\text{V}$, $I_E=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}$, $I_C=0$			10	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5\text{V}$, $I_C=150\text{mA}$	2SD669		320	
	$h_{FE(2)}$	$V_{CE}=5\text{V}$, $I_C=500\text{mA}$	2SD669A		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$			1	V
Base-emitter voltage	V_{BE}	$V_{CE}=5\text{V}$, $I_C=150\text{mA}$			1.5	V
Transition frequency	f_T	$V_{CE}=5\text{V}$, $I_C=150\text{mA}$		140		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$		14		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	B	C	D
Range 2SD669	60-120	100-200	160-320
2SD669A	60-120	100-200	

Typical Characteristics

2SD669/2SD669A

