



TO-18 Plastic-Encapsulated Transistors

2SD669 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 1 W ($T_{amb}=25^{\circ}C$)

Collector current

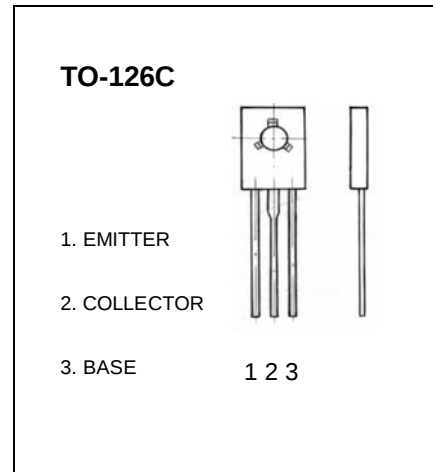
I_{CM} : 1.5 A

Collector-base voltage

$V_{(BR)CBO}$: 180 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=160V, I_E=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			10	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=150mA$	60		320	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=500mA$	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			1	V
Base-emitter voltage	V_{BE}	$V_{CE}=5V, I_C=150mA$			1.5	V
Transition frequency	f_T	$V_{CE}=5V, I_C=150mA$		140		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		14		pF

CLASSIFICATION OF $h_{FE(1)}$

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

Typical Characteristics

2SD669

