

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

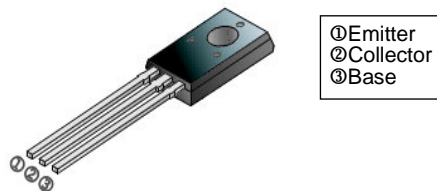
FEATURES

- Low frequency power amplifier

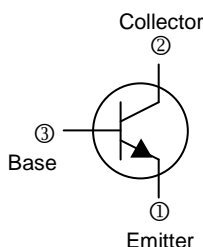
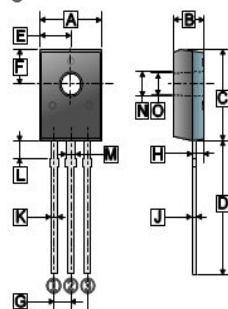
CLASSIFICATION OF h_{FE}

Product-Rank	2SD669AT-B	2SD669AT-C
Range	60~120	100~200

TO-18



① Emitter
② Collector
③ Base



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	7.40	7.80	H	1.10	1.50
B	2.50	2.90	J	0.45	0.60
C	10.60	11.00	K	0.66	0.86
D	15.30	15.70	L	2.10	2.30
E	3.70	3.90	M	1.17	1.37
F	3.90	4.10	N	3.00	3.20
G	2.29 TYP.				

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	180	V
Collector to Emitter Voltage	V_{CEO}	160	V
Emitter to Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	1.5	A
Collector Dissipation	P_C	1	W
Junction and Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	180	-	-	V	$I_C=1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	160	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=1\text{mA}, I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	10	μA	$V_{CB}=160\text{V}, I_E=0$
Emitter Cut-Off Current	I_{EBO}	-	-	10	μA	$V_{EB}=4\text{V}, I_C=0$
DC Current Gain	h_{FE}	60	-	200		$V_{CE}=5\text{V}, I_C=150\text{mA}$
		30	-	-		$V_{CE}=5\text{V}, I_C=500\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	1	V	$I_C=500\text{mA}, I_B=50\text{mA}$
Base to Emitter Voltage	$V_{BE(on)}$	-	-	1.5	V	$V_{CE}=5\text{V}, I_C=150\text{mA}$
Transition Frequency	f_T	-	140	-	MHz	$V_{CE}=5\text{V}, I_C=150\text{mA}$
Collector Output Capacitance	C_{ob}	-	14	-	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$

CHARACTERISTIC CURVES

Static Characteristic

