

2SD2135

Silicon NPN Epitaxial Planar Darlington Type

AF Amplifier

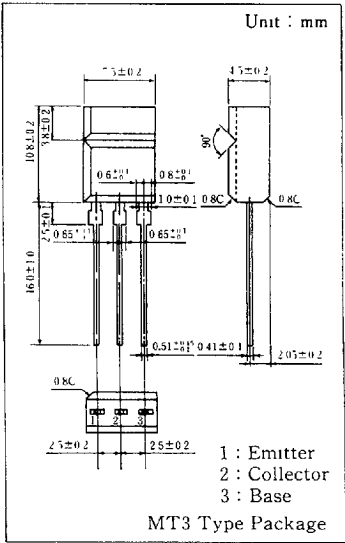
Features

- High DC current gain (h_{FE})
- 60V Zener diode built-in between C and B
- Automatic mounting by radial taping is possible.

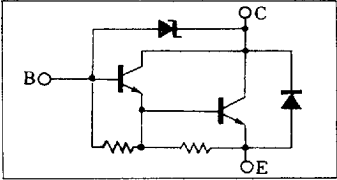
Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	60^{+25}_{-10}	V
Collector-emitter voltage	V_{CEO}	60^{+25}_{-10}	V
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	1.5	A
Collector current	I_C	1.0	A
Collector power dissipation	P_C	1.5	W
Junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	$-55 \sim +150$	$^{\circ}\text{C}$

Package Dimensions



Inner Circuit



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

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	$V_{CB}=25\text{V}, I_E=0$			1	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			2	mA
Collector-base voltage	V_{CBO}	$I_C=100\mu\text{A}, I_E=0$	50		85	V
Collector-emitter voltage	V_{CEO}	$I_C=1\text{mA}, I_B=0$	50		85	V
DC current gain	h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{A}$	6500		40000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1.0\text{A}, I_B=1.0\text{mA}$			1.8	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1.0\text{A}, I_B=1.0\text{mA}$			2.2	V
Transition frequency	f_T	$V_{CB}=10\text{V}, I_C=-50\text{mA}, f=200\text{MHz}$		150		MHz

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