

# 2SD1266, 2SD1266A

## Silicon NPN Triple-Diffused Planar Type

### Power Amplifier

Complementary Pair with 2SB941, 2SB941A

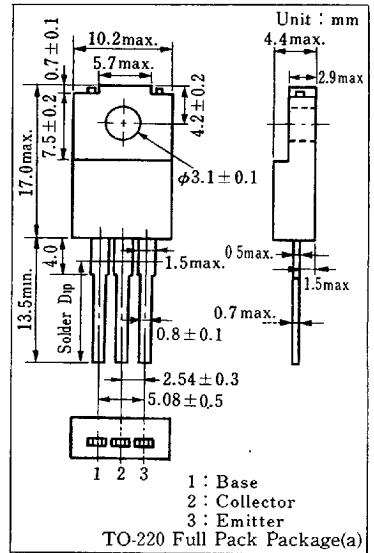
#### ■ Features

- High DC current gain ( $h_{FE}$ ) and good linearity
- Low collector-emitter saturation voltage ( $V_{CE(sat)}$ )
- "Full Pack" package for simplified mounting on a heat sink with one screw

#### ■ Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Collector-base voltage	2SD1266	60	V
	2SD1266A	80	
Collector-emitter voltage	2SD1266	60	V
	2SD1266A	80	
Emitter-base voltage	$V_{EBO}$	6	V
Peak collector current	$I_{CP}$	5	A
Collector current	$I_C$	3	A
Collector power dissipation	$T_c=25^\circ\text{C}$	35	W
	$T_a=25^\circ\text{C}$	2	
Junction temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

#### ■ Package Dimensions



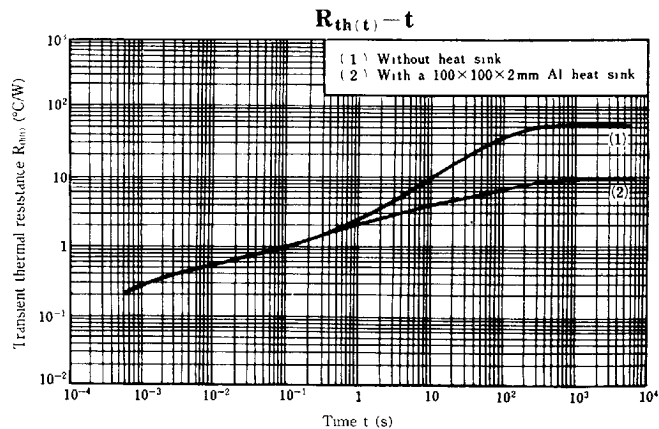
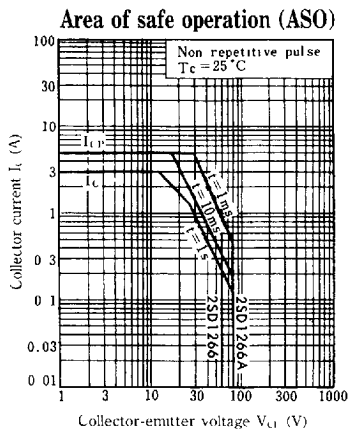
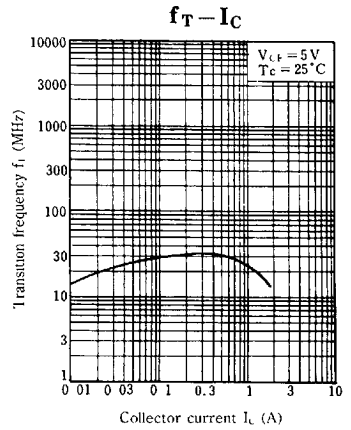
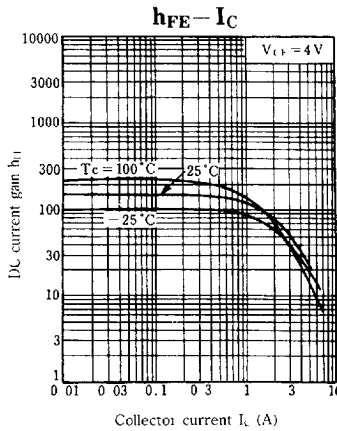
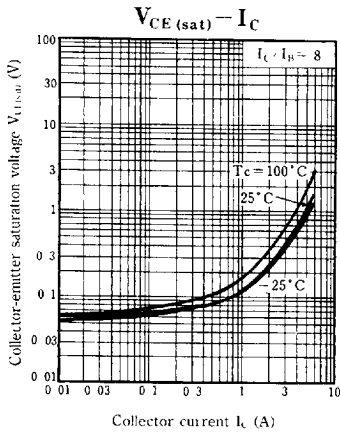
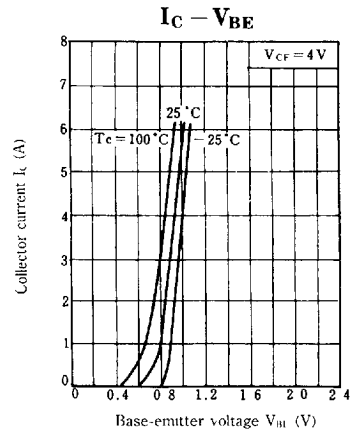
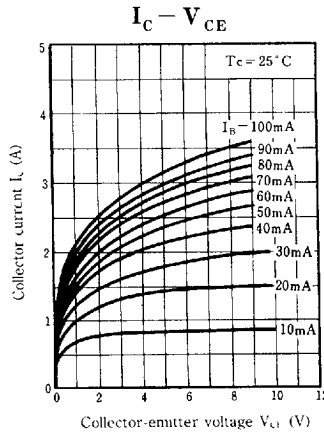
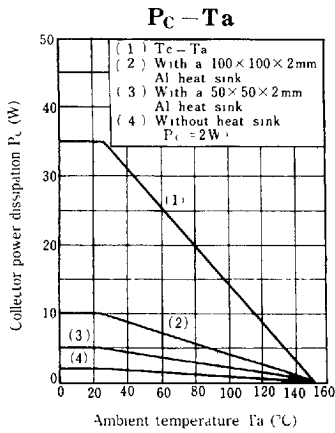
#### ■ Electrical Characteristics ( $T_c=25^\circ\text{C}$ )

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	2SD1266	$V_{CE}=60\text{ V}, V_{BE}=0$			200	$\mu\text{A}$
	2SD1266A	$V_{CE}=80\text{ V}, V_{BE}=0$			200	
Collector cutoff current	2SD1266	$V_{CE}=60\text{ V}, I_B=0$			300	$\mu\text{A}$
	2SD1266A	$V_{CE}=80\text{ V}, I_B=0$			300	
Emitter cutoff current	$I_{EBO}$	$V_{EB}=6\text{ V}, I_C=0$			1	mA
Collector-emitter voltage	2SD1266	$I_C=30\text{ mA}, I_B=0$	60			V
	2SD1266A		80			
DC current gain	$h_{FE1}^*$	$V_{CE}=4\text{ V}, I_C=1\text{ A}$	40		320	
		$V_{CE}=4\text{ V}, I_C=3\text{ A}$	10			
Base-emitter voltage	$V_{BE}$	$V_{CE}=4\text{ V}, I_C=3\text{ A}$			1.8	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=3\text{ A}, I_B=0.375\text{ A}$			1.2	V
Transition frequency	$f_T$	$V_{CE}=10\text{ V}, I_C=0.5\text{ A}, f=10\text{ MHz}$		30		MHz
Turn-on time	$t_{on}$	$I_C=1\text{ A}, I_{B1}=0.1\text{ A}, I_{B2}=-0.1\text{ A}, V_{CC}=50\text{ V}$		0.5		$\mu\text{s}$
Storage time	$t_{stg}$			2.5		$\mu\text{s}$
Fall time	$t_f$			0.4		$\mu\text{s}$

\* $h_{FE1}$  Classifications

Class	R	Q	P	O
$h_{FE1}$	40 ~ 90	70 ~ 150	120 ~ 250	160 ~ 320

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