

2SD860, 2SD860A

PANASONIC INDL/ELEK(SEMI) 69E D

Silicon NPN Triple-Diffused Planar Type

Power Amplifier

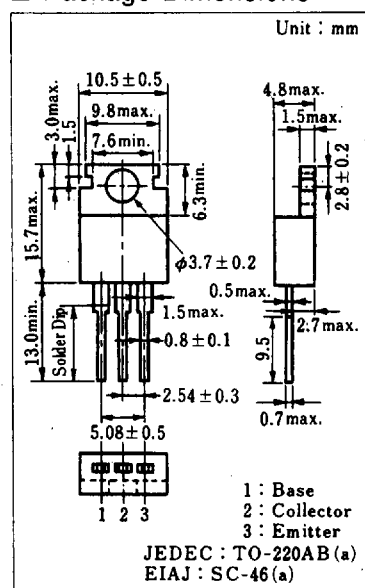
■ Feature

- High collector-base voltage (V_{CBO})

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

Item	Symbol	Value	Unit
Collector-base voltage	2SD860	350	V
	2SD860A	400	
Collector-emitter voltage	2SD860	250	V
	2SD860A	300	
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	2	A
Collector current	I_C	1	A
Collector power dissipation	$T_c=25^\circ\text{C}$	40	W
	$T_a=25^\circ\text{C}$	1.4	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$

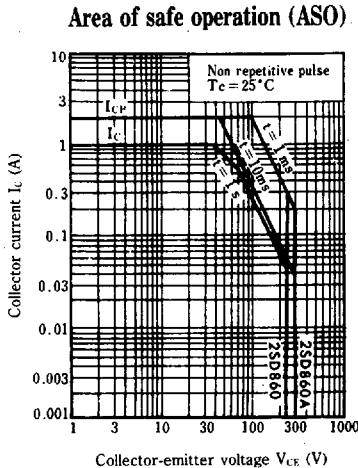
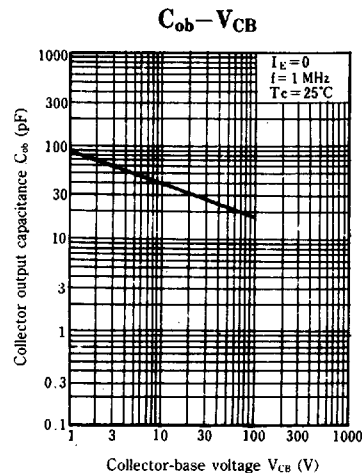
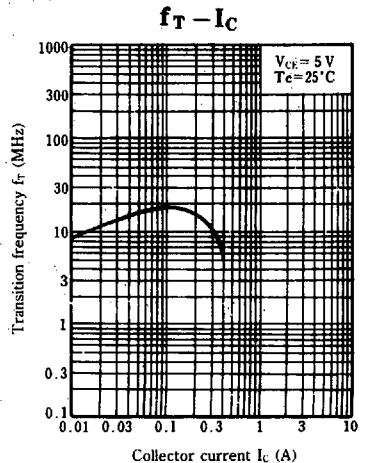
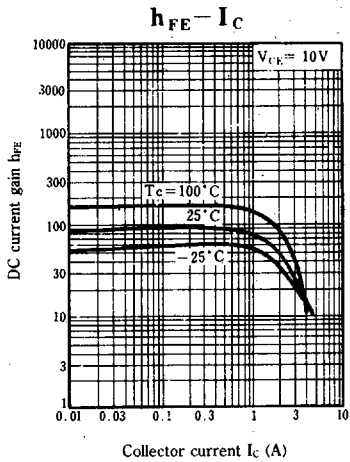
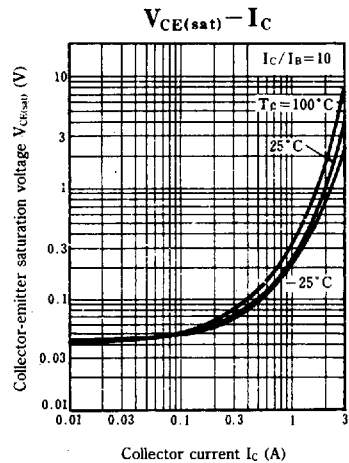
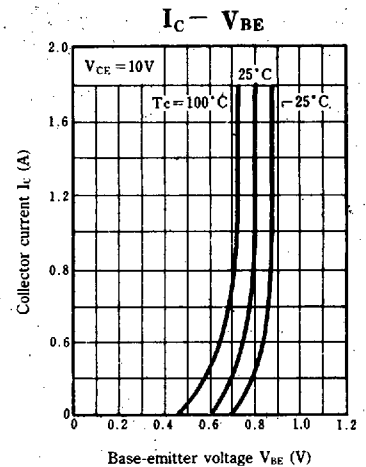
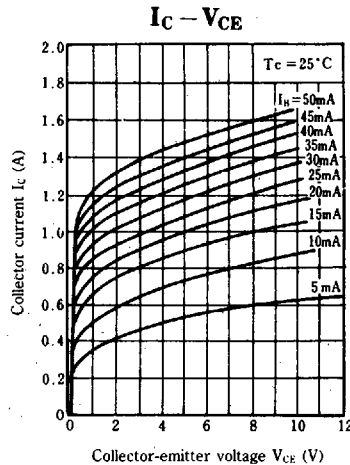
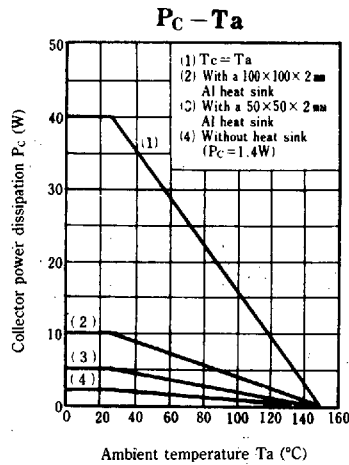
■ Package Dimensions

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

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	2SD860	$V_{CE}=150\text{ V}, I_B=0$			1	mA
	2SD860A	$V_{CE}=200\text{ V}, I_B=0$			1	
Collector cutoff current	2SD860	$V_{CE}=350\text{ V}, V_{BE}=0$			1	mA
	2SD860A	$V_{CE}=400\text{ V}, V_{BE}=0$			1	
Emitter cutoff current	I_{EBO}	$V_{EB}=5\text{ V}, I_C=0$			1	mA
Collector-emitter voltage	2SD860	$I_C=30\text{ mA}, I_B=0$	250			V
	2SD860A	$I_C=30\text{ mA}, I_B=0$	300			
DC current gain	h_{FE1}^*	$V_{CE}=10\text{ V}, I_C=0.3\text{ A}$	40		250	
	h_{FE2}	$V_{CE}=10\text{ V}, I_C=2\text{ A}$	10			
Base-emitter voltage	V_{BE}	$V_{CE}=10\text{ V}, I_C=2\text{ A}$			1.5	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{ A}, I_B=0.4\text{ A}$			1	V
Transition frequency	f_T	$V_{CE}=5\text{ V}, I_C=0.2\text{ A}, f=1\text{ MHz}$		20		MHz
Turn-on time	t_{on}	$V_{CC}=50\text{ V}, I_C=2\text{ A}, I_{B1}=0.2\text{ A}, I_{B2}=-0.2\text{ A}$		0.2		μs
Turn-off time	t_{off}	$V_{CC}=50\text{ V}, I_C=2\text{ A}, I_{B1}=0.2\text{ A}, I_{B2}=-0.2\text{ A}$		2		μs

* h_{FE1} Classifications

Class	R	Q	P
h_{FE1}	40~90	70~150	120~250



Note) Refer to P.620 (on 2SD812/A) for $R_{th(ja)} - t$ characteristics.

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