2SD1265, 2SD1265A

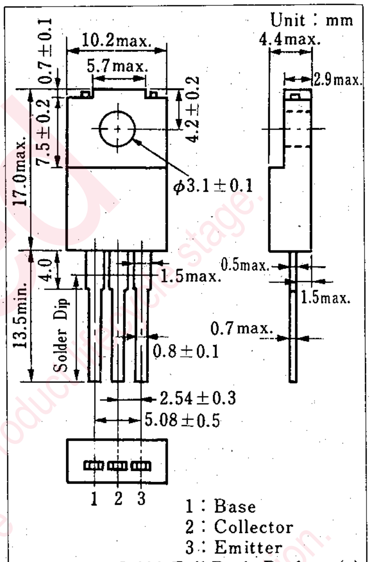
Silicon NPN Triple-Diffused Junction Type

Power Amplifier

■ Features

- Wide area of safety operation (ASO)
- "Full Pack" package for simplified mounting on a heat sink with one screw

■ Package Dimensions



TO-220 Full Pack Package(a)

■ Absolute Maximum Ratings (Tc=25°C)

Item		Symbol	Value	Unit
Collector-base voltage	2SD1265	V_{CBO}	60	V
	2SD1265A		80	
Collector-emitter voltage	2SD1265	V_{CEO}	60	V
	2SD1265A		80	
Emitter-base voltage		V_{EBO}	8	V
Peak collector current		I_{CP}	6	A
Collector current		I_C	4	A
Base-emitter voltage		I_B	1	A
Collector power dissipation	Tc=25 ℃	P_C	30	W
	Ta=25 ℃		2	
Junction temperature		T_j	150	℃
Storage temperature		T_{stg}	−55～+150	℃

■ Electrical Characteristics (Tc=25°C)

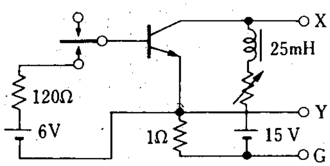
Item		Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current		I_{CBO}	V_{CB}=20 V, I_E=0			30	μA
Emitter cutoff current		I_{EBO}	V_{EB}=8 V, I_C=0			1	mA
Collector-emitter voltage	2SD1265	$V_{CEO(sus)}$*2	I_C=0.2 A, L=25 mH	60			V
	2SD1265A			80			
DC current gain		h_{FE1}	V_{CE}=3 V, I_C=0.1 A	40			
		h_{FE2}*1	V_{CE}=3 V, I_C=1 A	30		160	
Base-emitter voltage		V_{BE}	V_{CE}=3 V, I_C=1 A			1.2	V
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=2 A, I_B=0.4 A			1	V
Transition frequency		f_T	V_{CE}=10V, I_C=0.2A, f=0.5MHz		1		MHz

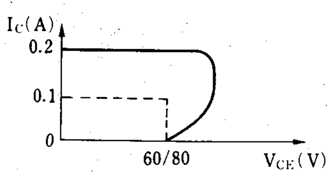
*1 h_{FE2} Classifications

Class	Q	P	O
h_{FE2}	30～60	50～100	80～160

*2 $V_{CEO(sus)}$ Test method

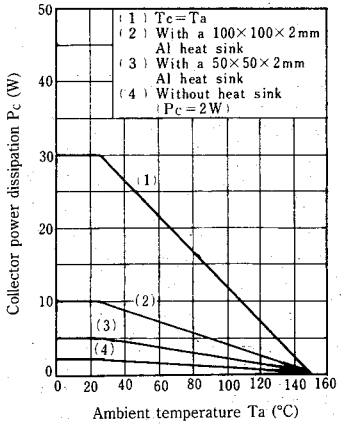
Mercury relay 50/60 Hz



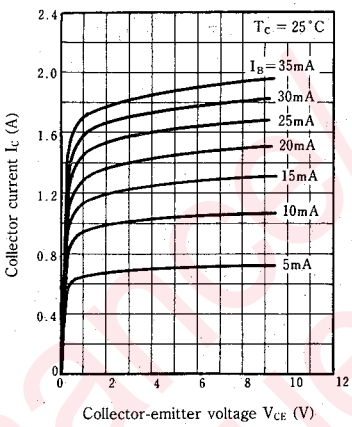


2SD1265/2SD1265A

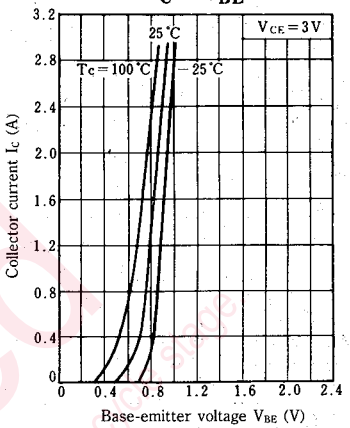
$P_C - Ta$



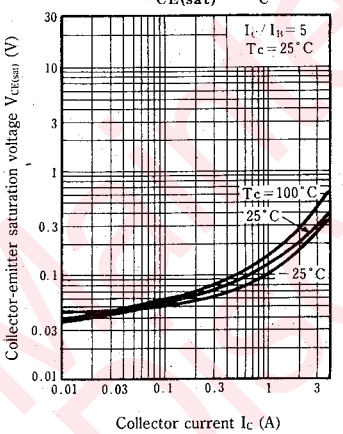
$I_C - V_{CE}$



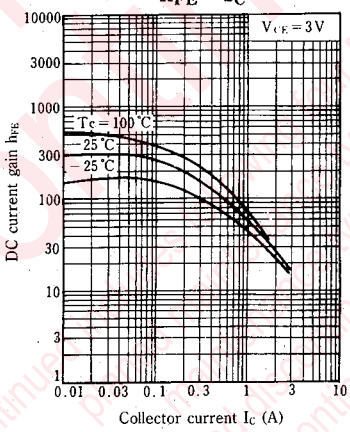
$I_C - V_{BE}$



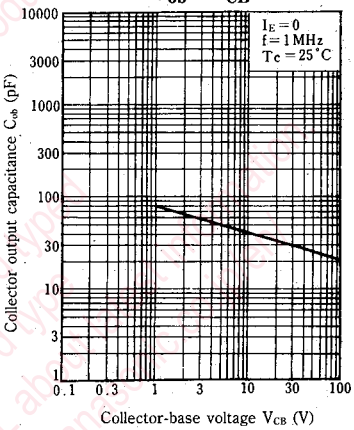
$V_{CE(sat)} - I_C$



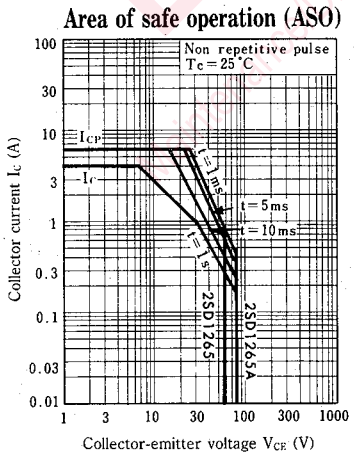
$h_{FE} - I_C$



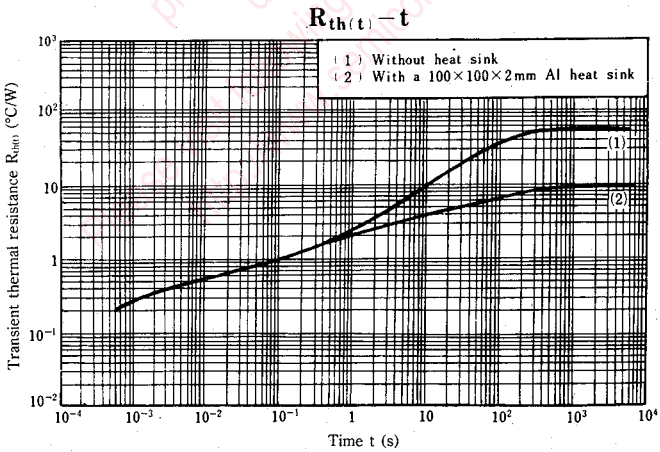
$C_{ob} - V_{CB}$



Area of safe operation (ASO)



$R_{th(t)} - t$



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