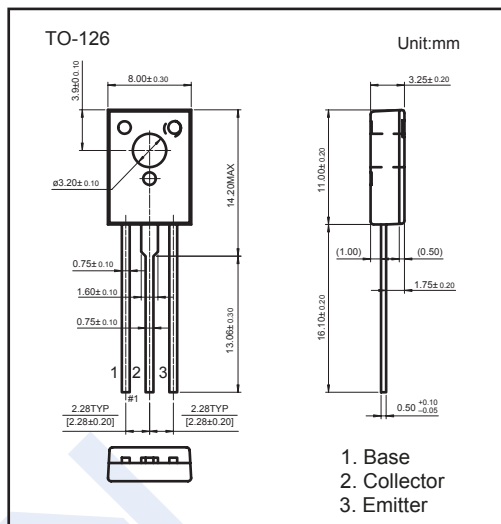


NPN Transistors

2SD882

■ Features

- Excellent h_{FE} linearity and high h_{FE}
 $h_{FE} = 60$ to 400 ($V_{CE} = 2\text{ V}$, $I_C = 1\text{ A}$)



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current to Continuous	I_C	3	A
Collector Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to 150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C=100\mu\text{A}$, $I_E=0$	40			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=10\text{ mA}$, $I_B=0$	30			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=40\text{ V}$, $I_E=0$			1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=30\text{ V}$, $I_B=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6\text{ V}$, $I_C=0$			1	μA
DC current gain	h_{FE}	$V_{CE}=2\text{ V}$, $I_C=1\text{ A}$	60		400	
		$V_{CE}=2\text{ V}$, $I_C=100\text{ mA}$	32			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{ A}$, $I_B=0.2\text{ A}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2\text{ A}$, $I_B=0.2\text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE}=5\text{ V}$, $I_C=0.1\text{ mA}$, $f=10\text{ MHz}$	50			MHz

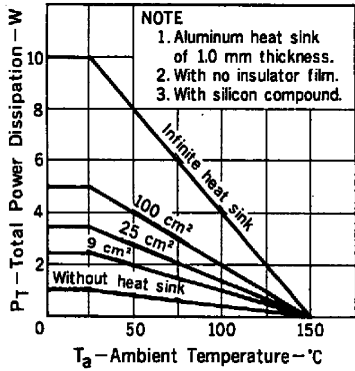
■ Classification of $h_{FE}(1)$

Type	2SD882-R	2SD882-Q	2SD882-P	2SD882-E
Range	60-120	100-200	160-320	200-400

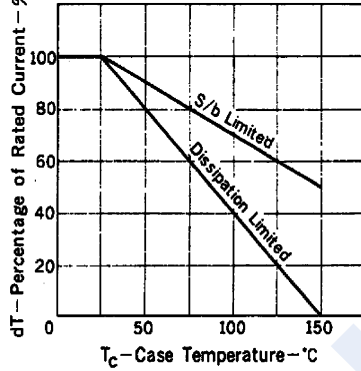
NPN Transistors 2SD882

■ Typical Characteristics

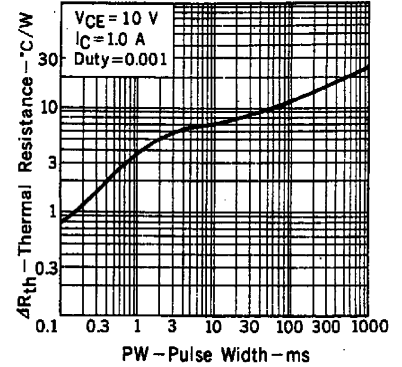
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



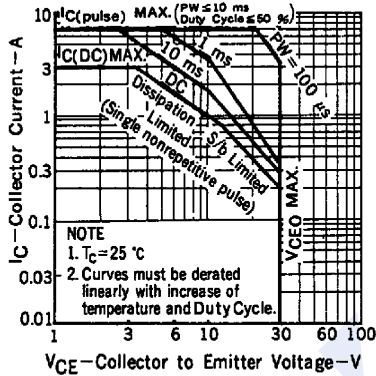
DERATING CURVES FOR ALL TYPES



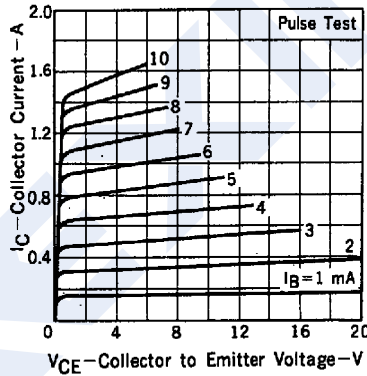
THERMAL RESISTANCE vs. PULSE WIDTH



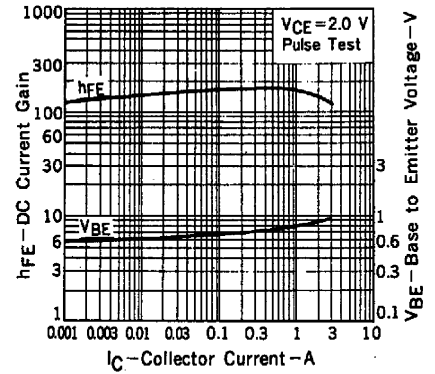
SAFE OPERATING AREAS



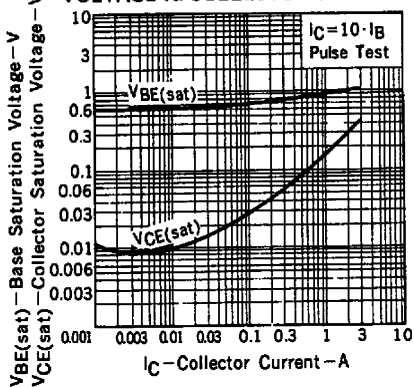
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



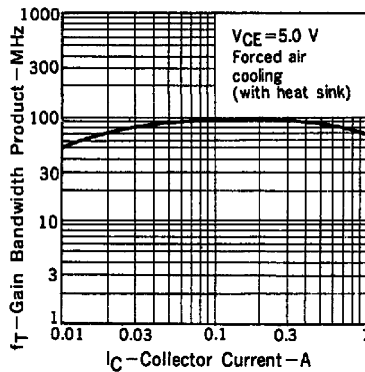
DC CURRENT GAIN, BASE TO EMITTER VOLTAGE vs. COLLECTOR CURRENT



BASE AND COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT



INPUT AND OUTPUT CAPACITANCE vs. REVERSE VOLTAGE

