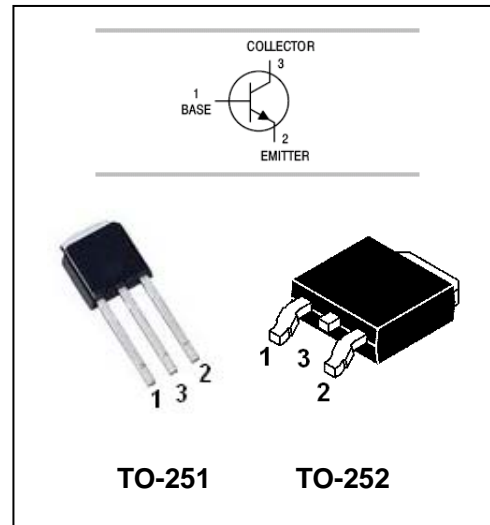


Low $V_{CE(sat)}$ Transistor (strobe flash)

2SD1182

FEATURES

- Low $V_{CE(sat)}$
 $V_{CE(sat)}=0.25V(Typ).$
($I_C/I_B=4A/0.1A$)
- Excellent DC current gain characteristics.



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	5	A
I_{CP}	Collector Power Dissipation	10	A
P_C	Collector Power Dissipation	1	W
T_j, T_{stg}	Junction and Storage temperature range	-55 to +150	°C

Low $V_{CE(sat)}$ Transistor (strobe flash)

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ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V_{CBO}	$I_C=50\mu\text{A}, I_E=0$	50			
Collector-emitter breakdown voltage	V_{CEO}	$I_C=1\text{mA}, I_B=0$	20			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=50\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=40\text{V}, I_E=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EBO}=5\text{V}, I_C=0$			0.5	μA
DC current gain	h_{FE}	$V_{CE}=2\text{V}, I_C=0.5\text{A}$	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=4\text{A}, I_B=0.1\text{A}$		0.25	1.0	V
Transition frequency	f_T	$V_{CE}=6\text{V}, I_E=-50\text{mA}$ $f=100\text{MHz}$		150		MHz
Output capacity	C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1\text{MHz}$		30		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R
Range	120-270	180-390

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

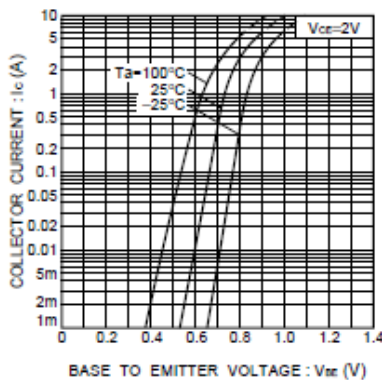


Fig.1 Grounded emitter propagation characteristics

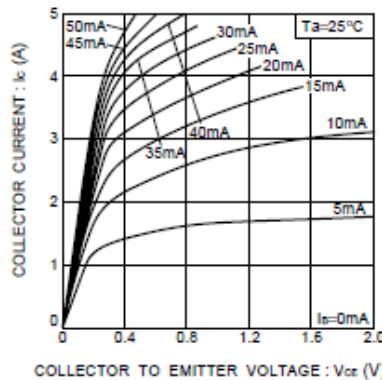


Fig.2 Grounded emitter output characteristics

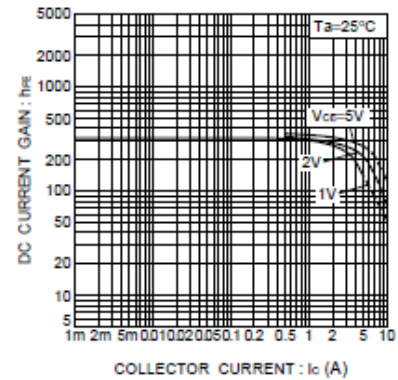


Fig.3 DC current gain vs. collector current (I)

Low $V_{CE(sat)}$ Transistor (strobe flash)

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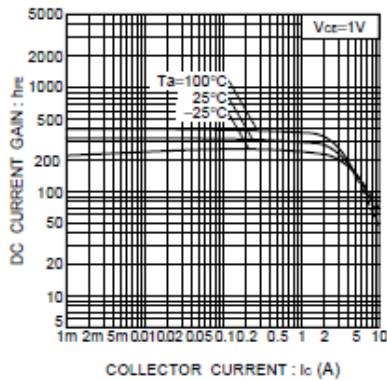


Fig.4 DC current gain vs. collector current (II)

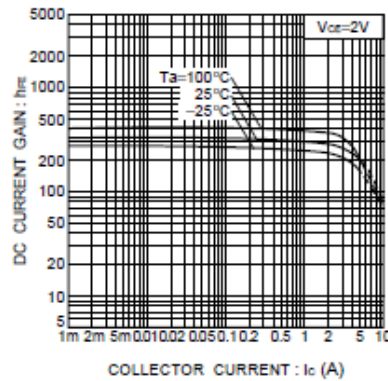


Fig.5 DC current gain vs. collector current (III)

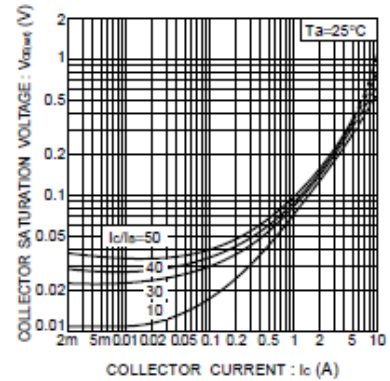


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

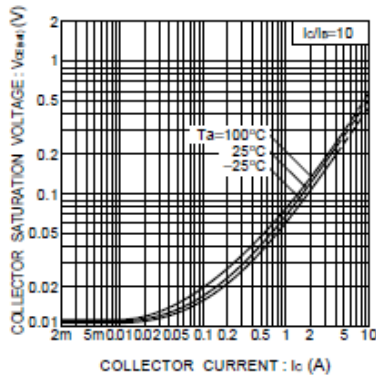


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

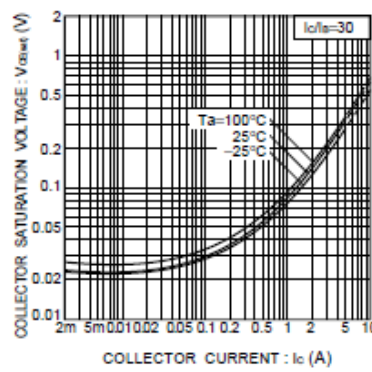


Fig.8 Collector-emitter saturation voltage vs. collector current (III)

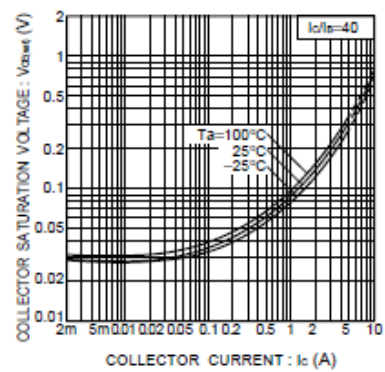


Fig.9 Collector-emitter saturation voltage vs. collector current (IV)

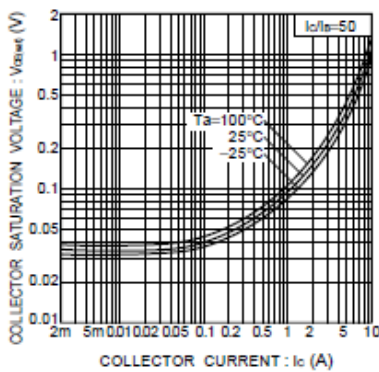


Fig.10 Collector-emitter saturation voltage vs. collector current (V)

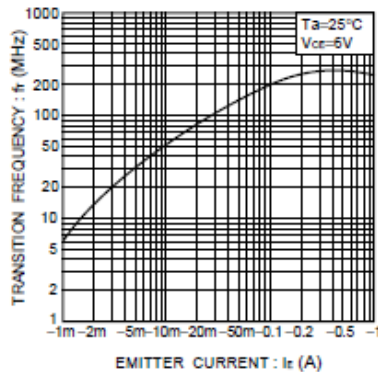


Fig.11 Gain bandwidth product vs. emitter current

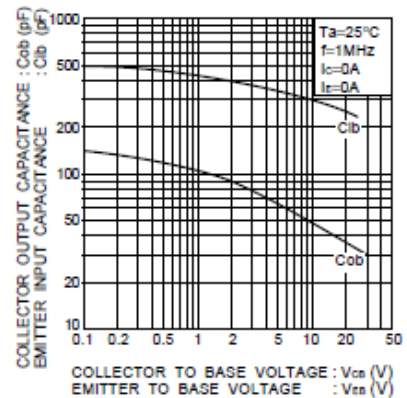


Fig.12 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

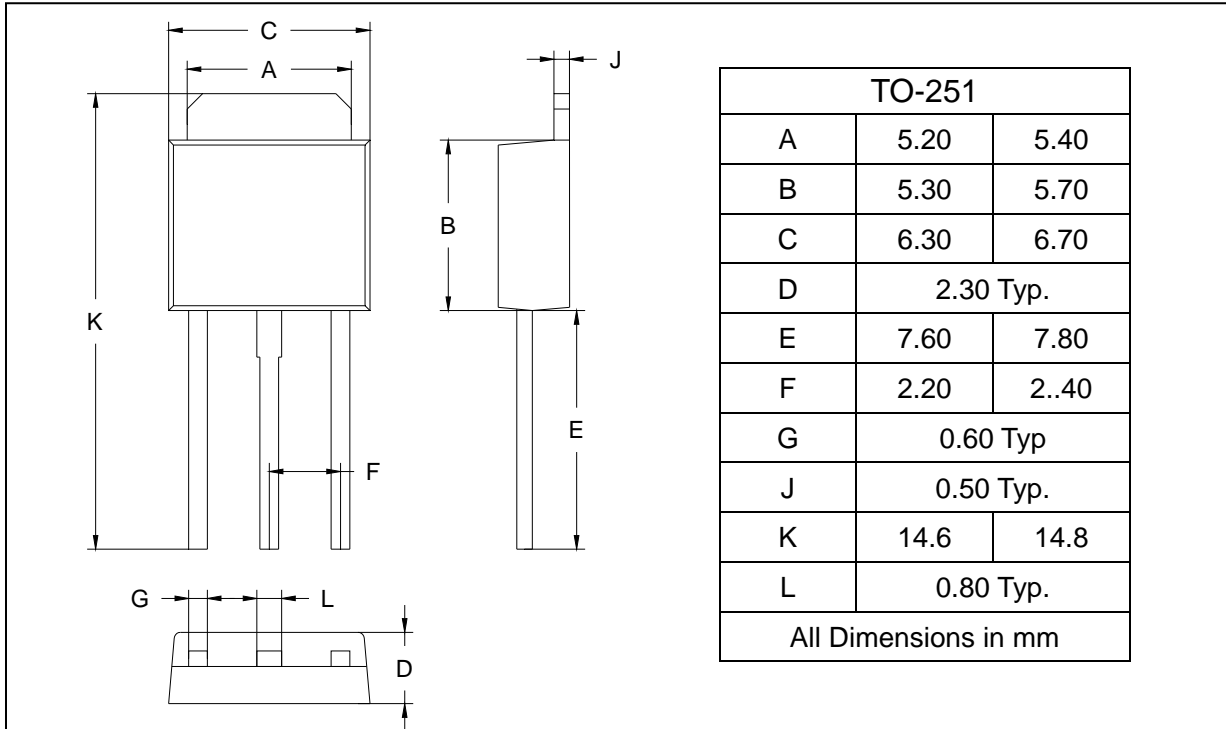
Low $V_{CE(sat)}$ Transistor (strobe flash)

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PACKAGE OUTLINE

Plastic surface mounted package

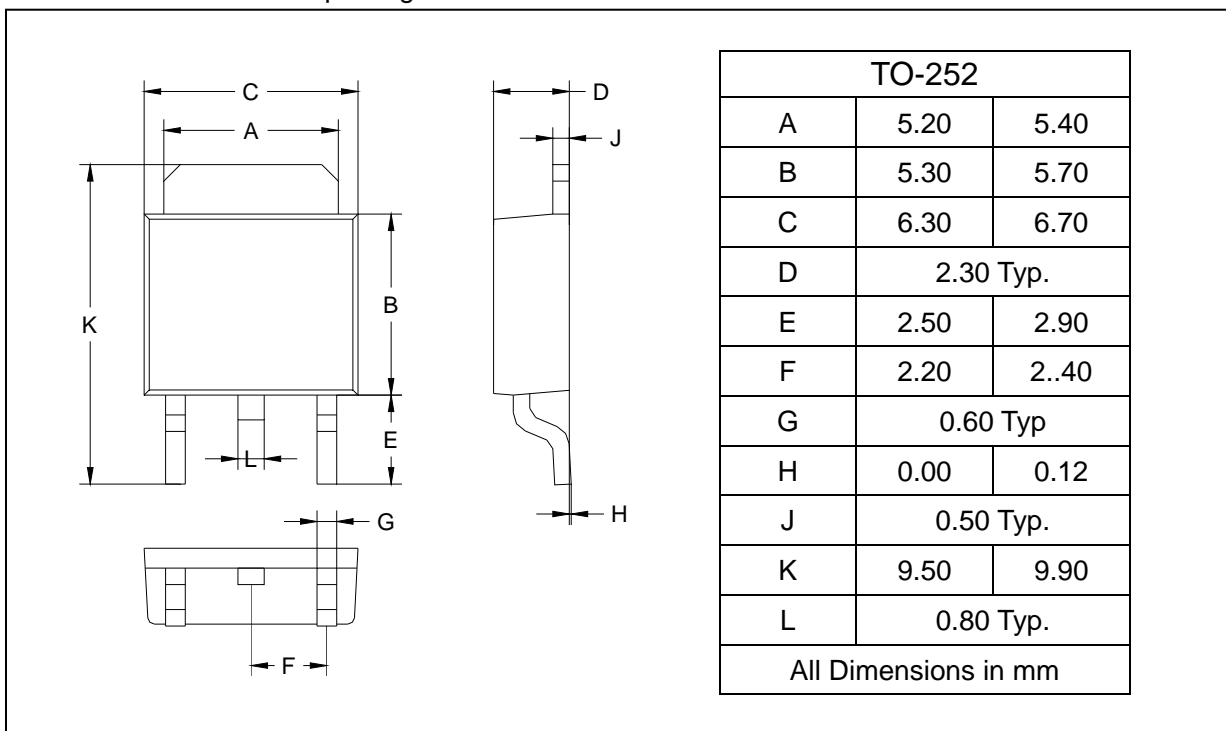
TO-251



PACKAGE OUTLINE

Plastic surface mounted package

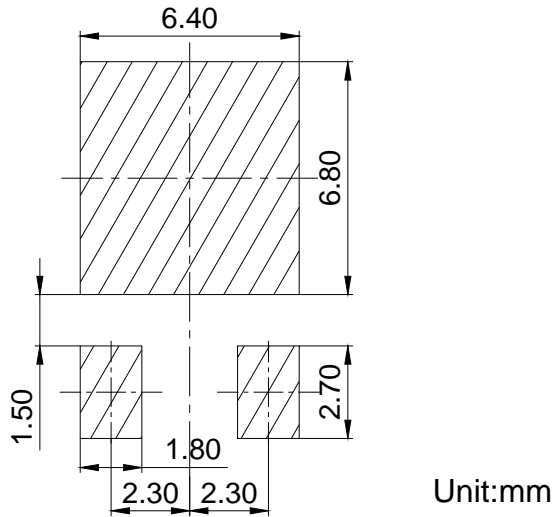
TO-252



Low $V_{CE(sat)}$ Transistor (strobe flash)

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SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SD1182	TO-251/252	80PCS/Tube
	TO-252	2500PCS/Tape&Reel