

SANYO	No.837E	2SD1159
	NPN Triple Diffused Planar Silicon Transistor TV Horizontal Deflection Output, High-Current Switching Applications	

Features

- Capable of efficient drive with small internal loss due to excellent t_f .

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

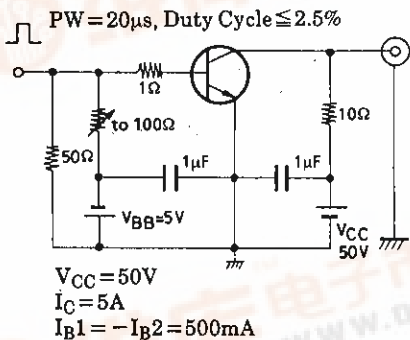
Parameter	Symbol	Value	unit
Collector-to-Base Voltage	V_{CB0}	200	V
Collector-to-Emitter Voltage	V_{CE0}	60	V
Emitter-to-Base Voltage	V_{EB0}	6	V
Collector Current	I_C	4.5	A
Collector Current (Pulse)	I_{CP}	10	A
Collector Dissipation	P_C	40	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

$T_c = 25^\circ\text{C}$

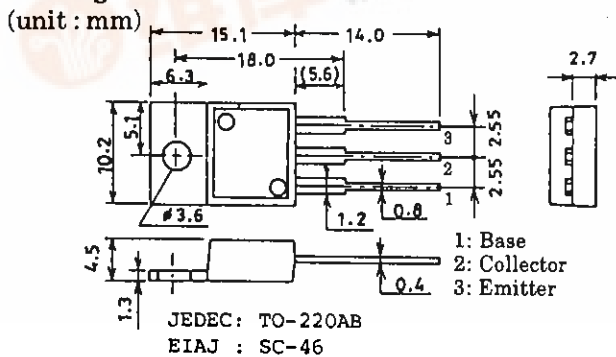
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 40\text{V}, I_E = 0$			0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			0.1	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	30		160	
	$h_{FE(2)}$	$V_{CE} = 5\text{V}, I_C = 4\text{A}$	25			
Gain-Bandwidth Product	f_T	$V_{CE} = 5\text{V}, I_C = 1\text{A}$		10		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 4\text{A}, I_B = 0.4\text{A}$		0.5	1.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 4\text{A}, I_B = 0.4\text{A}$			1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 5\text{mA}, I_E = 0$	200			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 5\text{mA}, R_{BE} = \infty$	60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 5\text{mA}, I_C = 0$	6			V
Fall Time	t_f	See specified Test Circuit.		0.2	0.5	μs

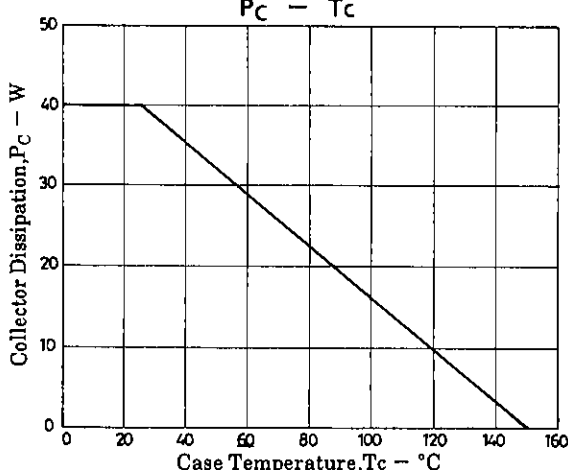
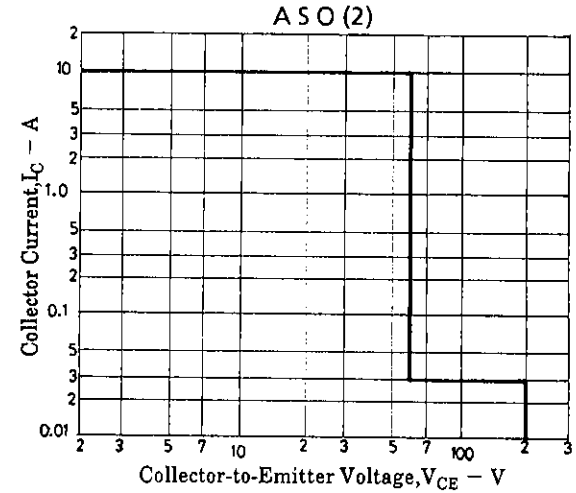
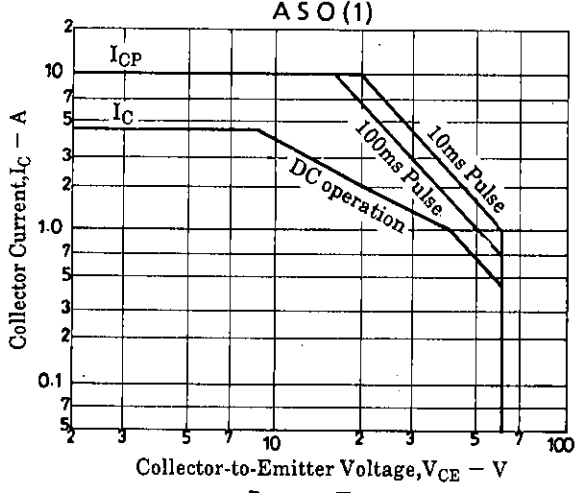
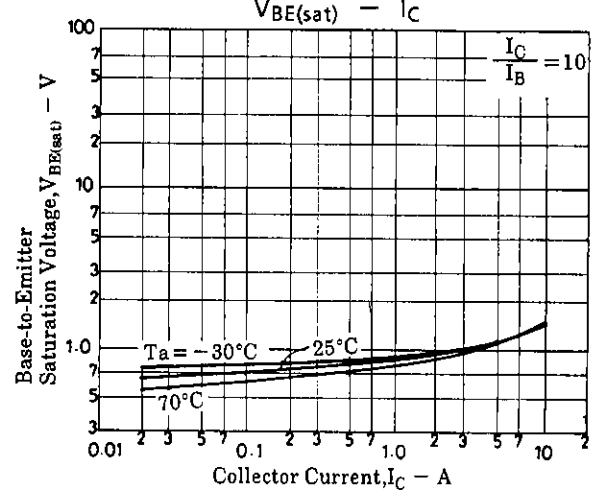
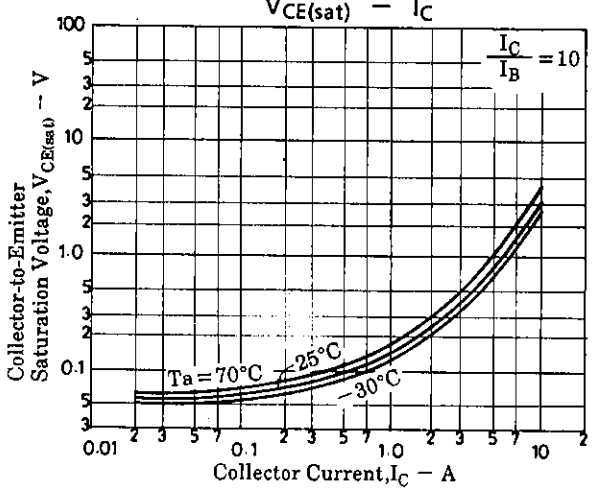
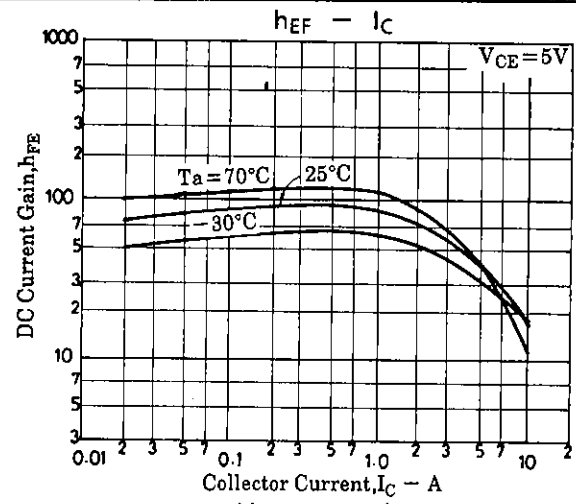
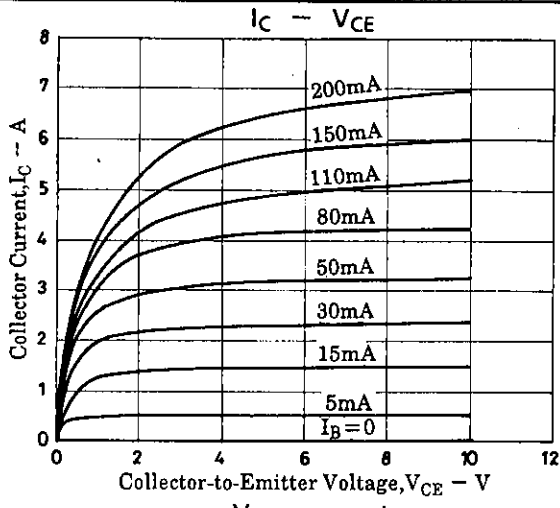
Specified Test Circuit



Package Dimensions 2010C



2SD1159



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