	No.3363	<h1 style="margin: 0;">2SB1467/2SD2218</h1> <p style="margin: 0;">PNP/NPN Epitaxial Planar Silicon Transistors</p> <p style="margin: 0;">General High-current Switching Applications</p>
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### Applications

- Relay drivers, high-speed inverters, converters

### Features

- Micaless package facilitating mounting
- Low collector-to-emitter saturation voltage:  $V_{CE(sat)} = -0.5V(\text{PNP}), 0.4V(\text{NPN})$  max
- Large current capacity

( ) : 2SB1467

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

			unit
Collector-to-Base Voltage	$V_{CB0}$	(-)	60 V
Collector-to-Emitter Voltage	$V_{CE0}$	(-)	30 V
Emitter-to-Base Voltage	$V_{EB0}$	(-)	6 V
Collector Current	$I_C$	(-)	8 A
Collector Current (Pulse)	$I_{CP}$	(-)	15 A
Collector Dissipation	$P_C$		2 W
		$T_c = 25^\circ\text{C}$	20 W
Junction Temperature	$T_j$		150 $^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150 $^\circ\text{C}$

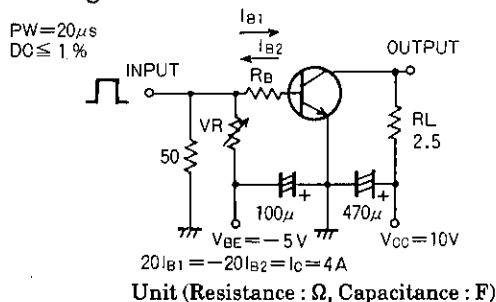
### Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)40V, I_E = 0$			(-)	0.1 mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)4V, I_C = 0$			(-)	0.1 mA
DC Current Gain	$h_{FE(1)}^*$	$V_{CE} = (-)2V, I_C = (-)1A$	70*		280*	
	$h_{FE(2)}$	$V_{CE} = (-)2V, I_C = (-)4A$	30			
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)5V, I_C = (-)1A$		120		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)3A, I_B = (-)0.15A$			(-)	0.5 V
						0.4 V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)1mA, I_E = 0$	(-)	60		V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)	30		V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)1mA, I_C = 0$	(-)	6		V
Turn-ON time	$t_{on}$	See specified Test Circuit.		0.1		$\mu\text{s}$
Storage Time	$t_{stg}$	Same as above.		(0.2)0.5		$\mu\text{s}$
Fall Time	$t_f$	Same as above.		0.03		$\mu\text{s}$

\* : The 2SB1467/2SD2218 are classified by 1A  $h_{FE}$  as follows :

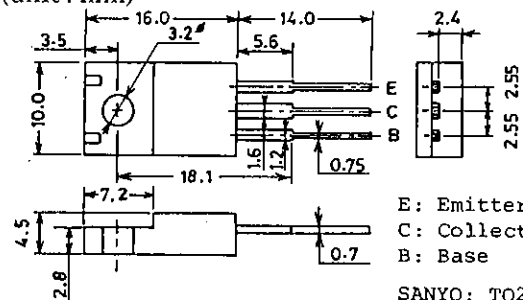
70 Q 140	100 R 200	140 S 280
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### Switching Time Test Circuit



### Package Dimensions 2041

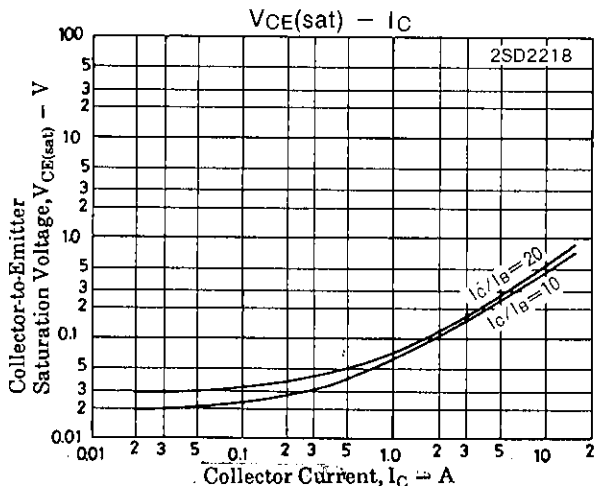
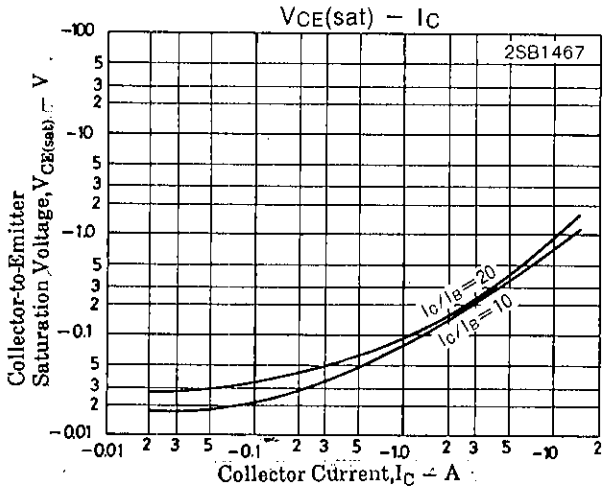
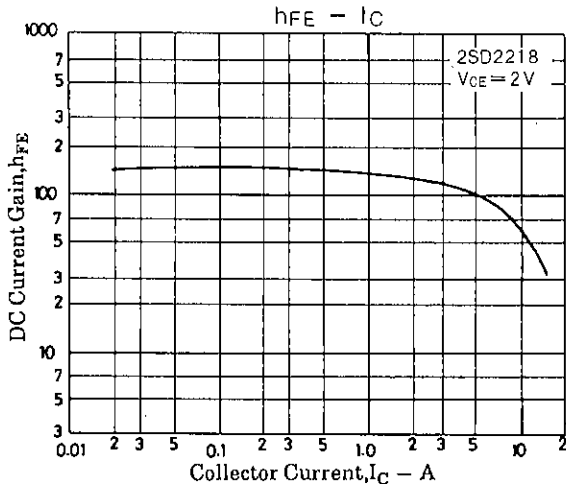
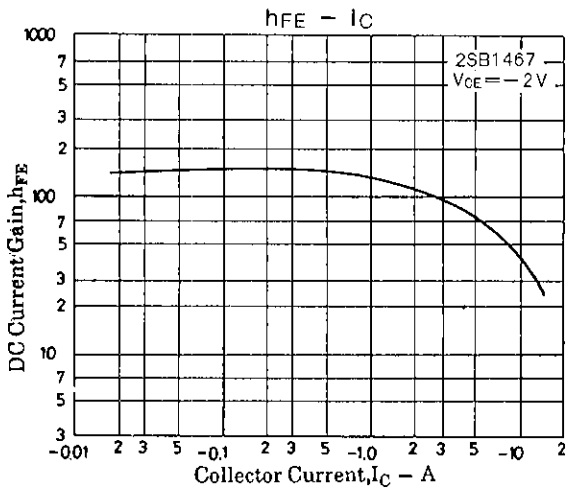
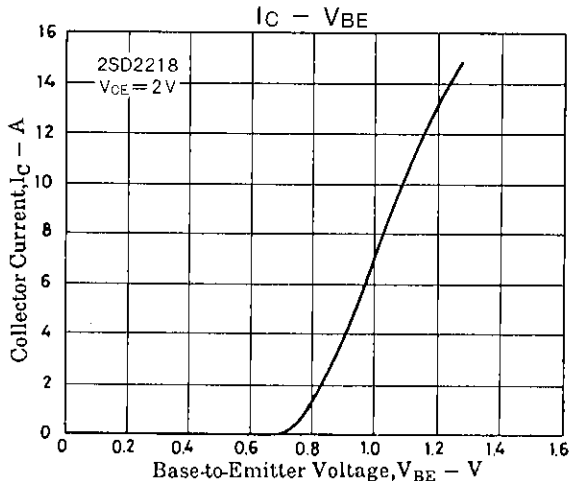
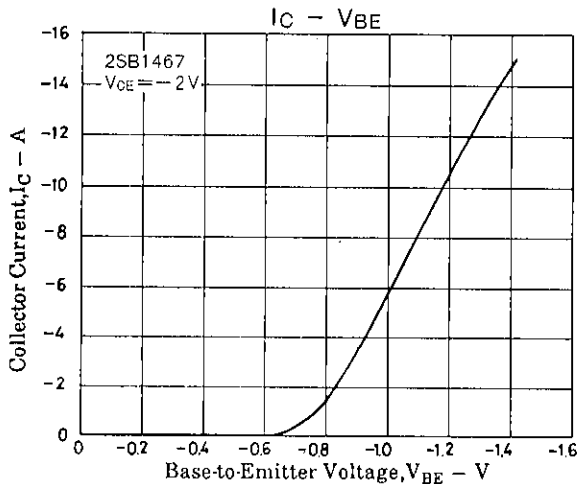
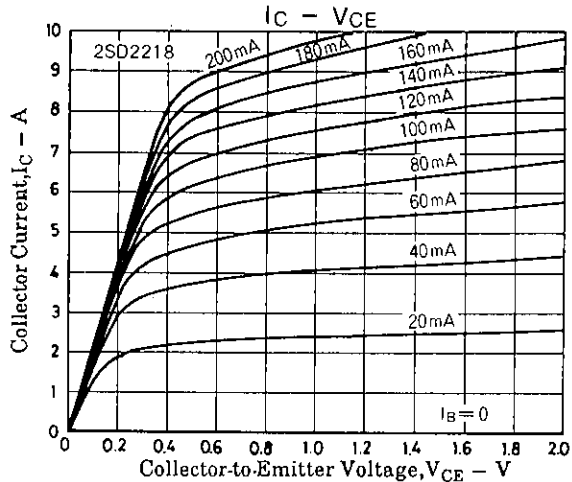
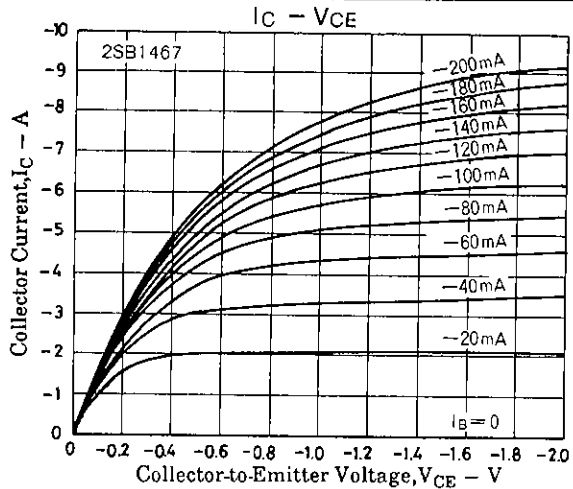
(unit : mm)



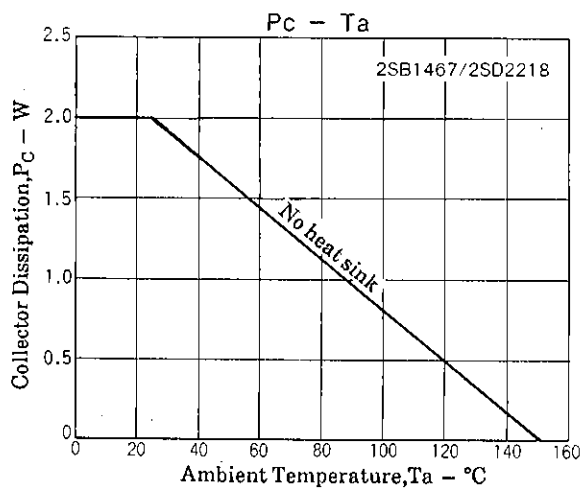
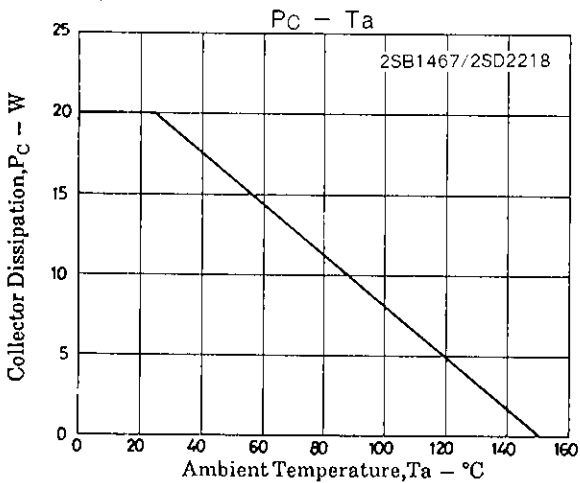
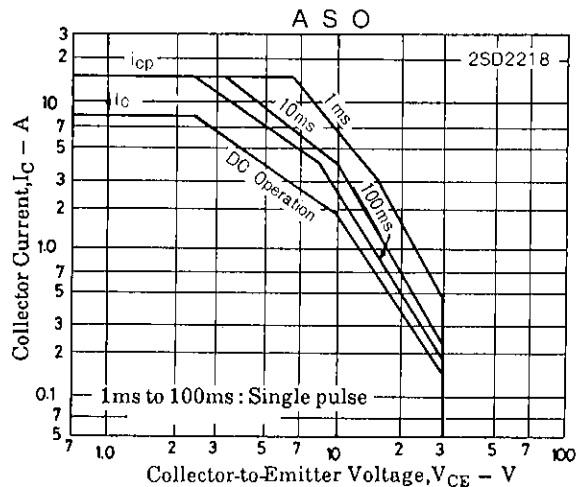
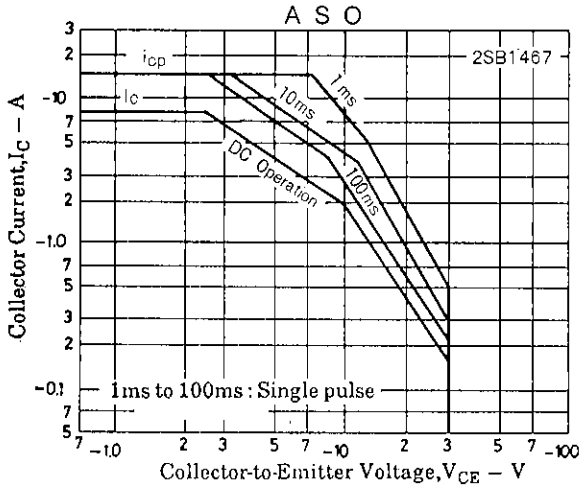
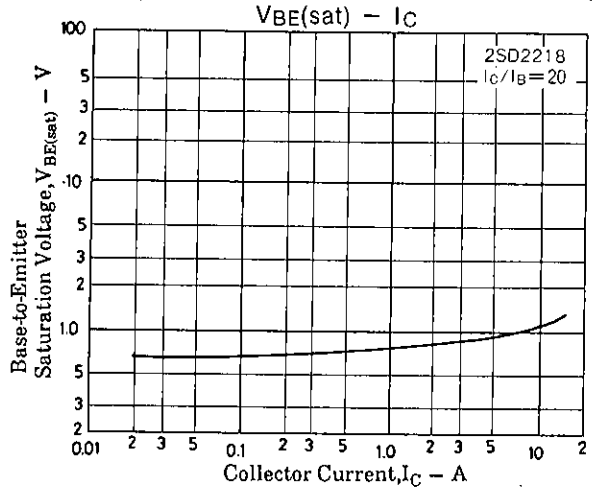
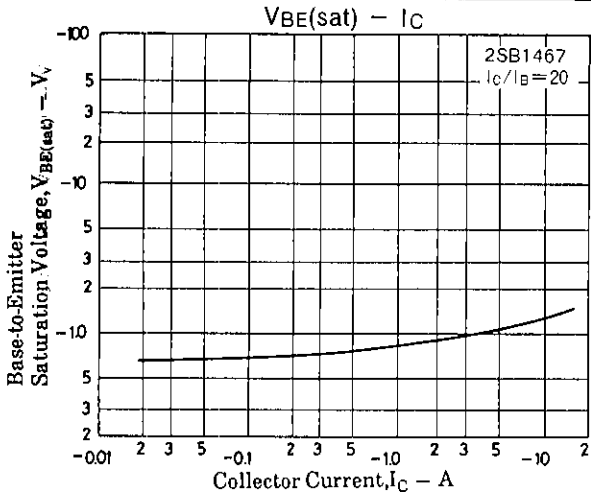
E: Emitter  
C: Collector  
B: Base

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2SB1467/2SD2218



# 2SB1467/2SD2218



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