

**2SD1627****Driver Applications****Applications**

- Motor drivers, hammer drivers, relay drivers, voltage regulator control.

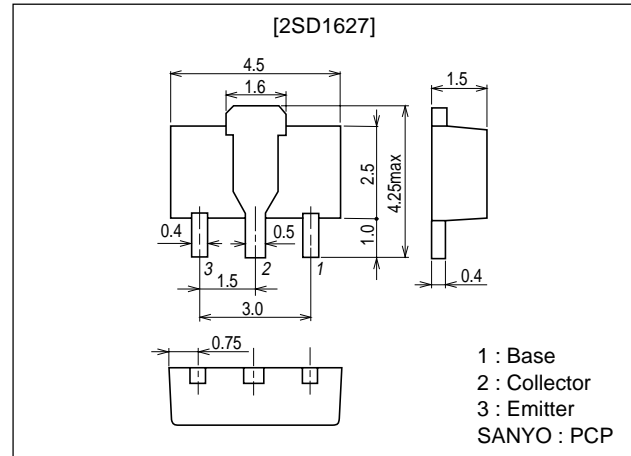
**Features**

- High DC current gain ( $h_{FE} \geq 4000$ ).
- Wide ASO.
- Ultrasmall size making it easy to provide high-density, small-sized hybrid ICs.

**Package Dimensions**

unit:mm

2038A

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		30	V
Collector-to-Emitter Voltage	$V_{CEO}$		25	V
Emitter-to-Base Voltage	$V_{EBO}$		10	V
Collector Current	$I_C$		2	A
Collector Current (Pulse)	$I_{CP}$		3	A
Collector Dissipation	$P_C$		500	mW
		Mounted on ceramic board (250mm <sup>2</sup> ×0.8mm)	1.5	W
Junction Temperature	$T_J$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CB0}$	$V_{CB}=20\text{V}, I_E=0$			1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=8\text{V}, I_C=0$			1	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=2\text{V}, I_C=500\text{mA}$	4000			
	$h_{FE2}$	$V_{CE}=2\text{V}, I_C=10\text{mA}$	3000			
Gain-Bandwidth Product	$f_T$	$V_{CE}=10\text{V}, I_C=50\text{mA}$		120		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=600\text{mA}, I_B=0.15\text{mA}$		0.9	1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=600\text{mA}, I_B=0.15\text{mA}$			2.0	V

Marking : DJ

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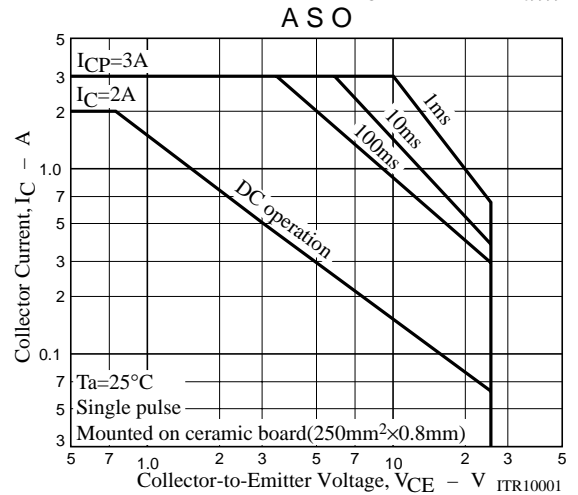
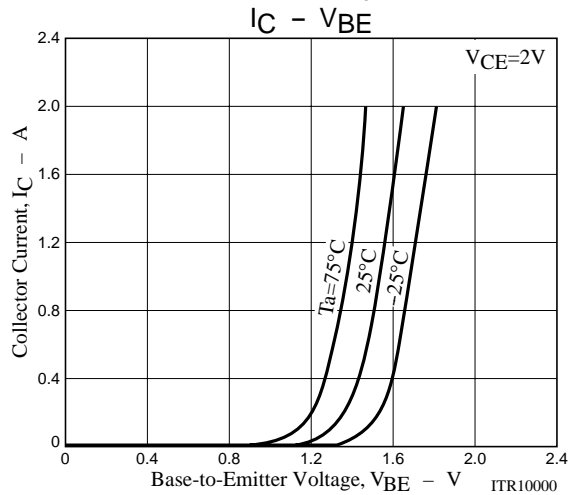
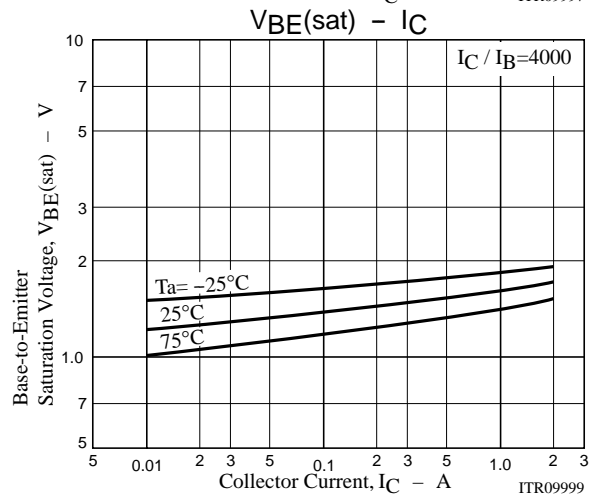
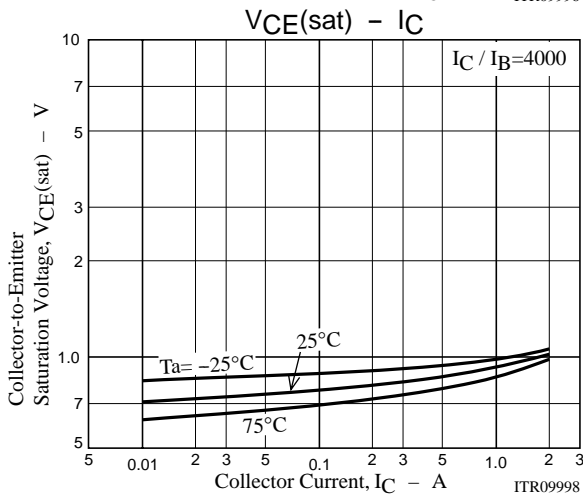
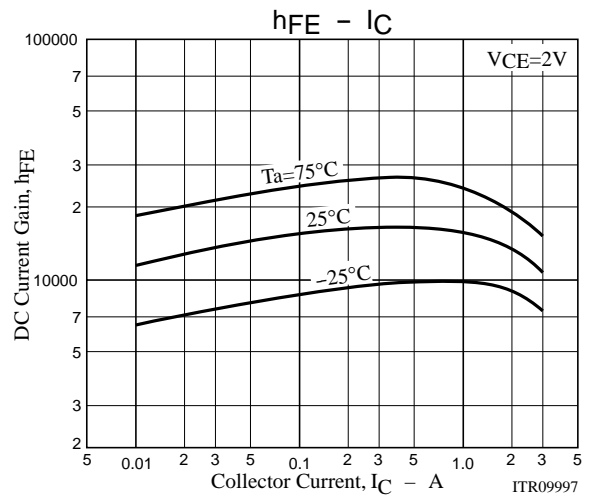
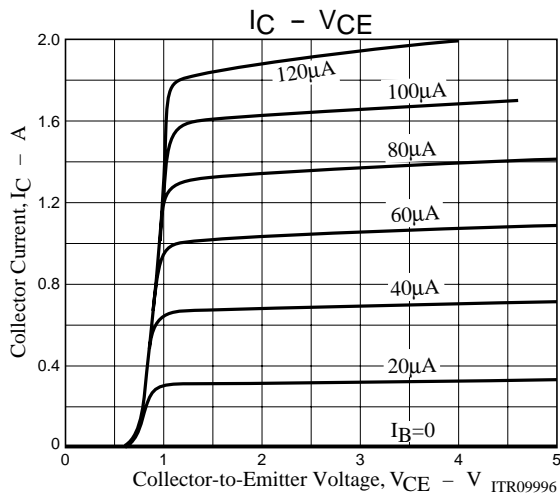
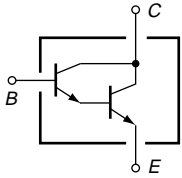
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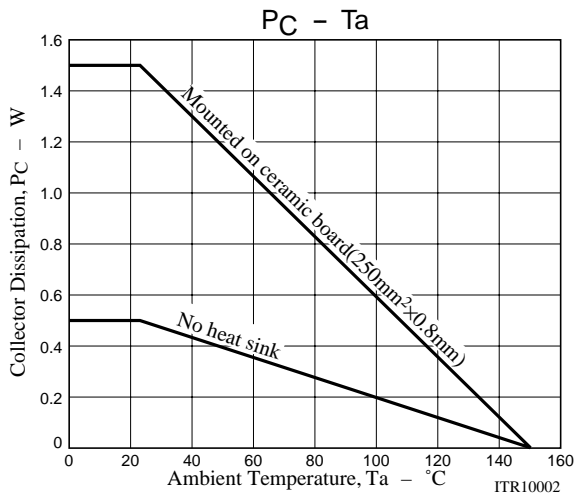
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	25			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	10			V

## Electrical Connection



## 2SD1627



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