

NPN Epitaxial Planar Silicon Transistor



2SD1627

Driver Applications

Applications

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

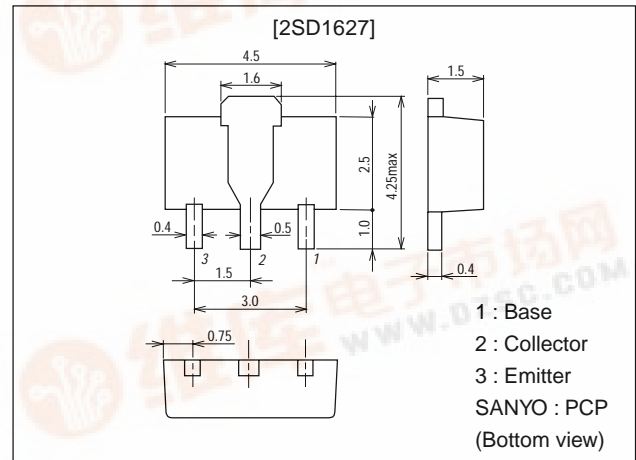
Features

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

Package Dimensions

unit:mm

2038A



Specifications

Absolute Maximum Ratings at Ta = 25°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 ² ×0.8mm)	1.5	W
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

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

Marking : DJ

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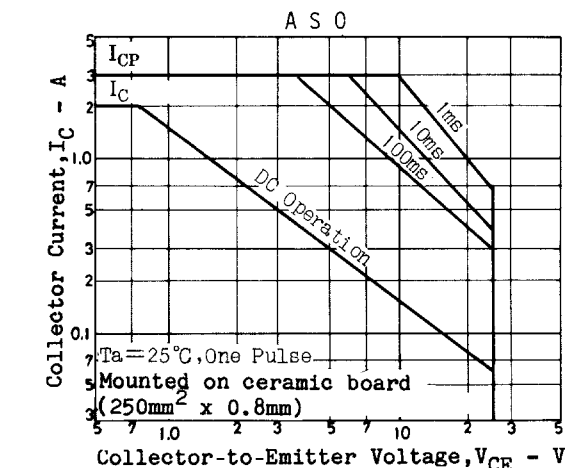
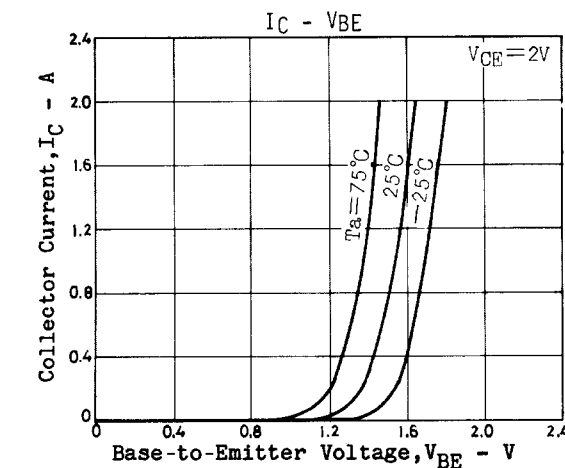
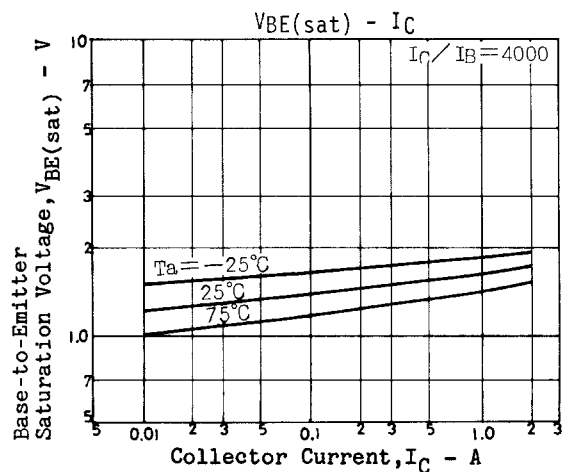
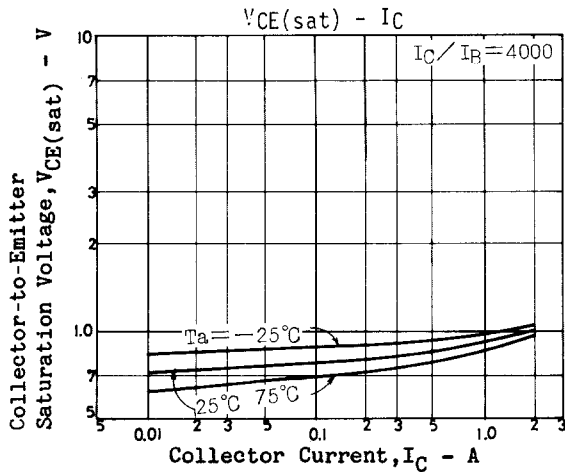
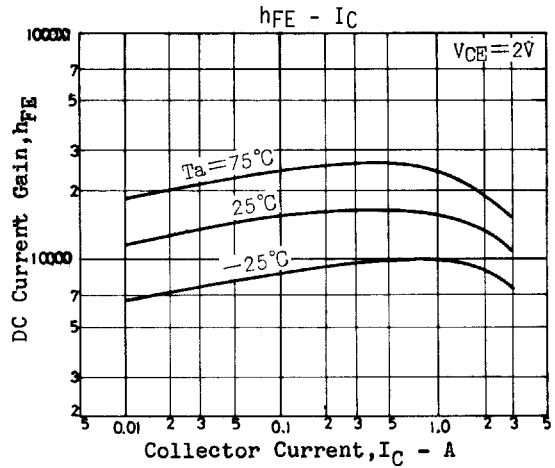
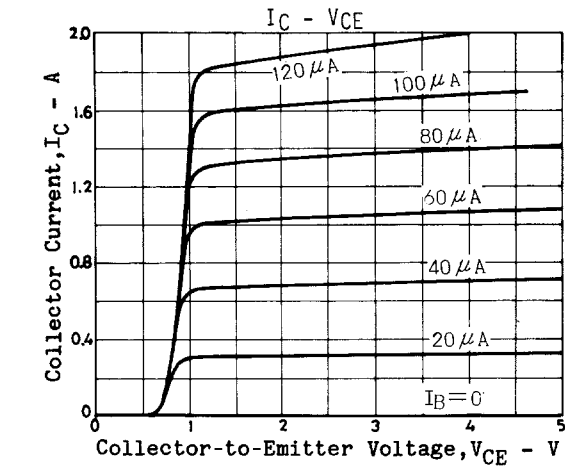
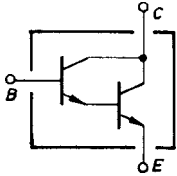


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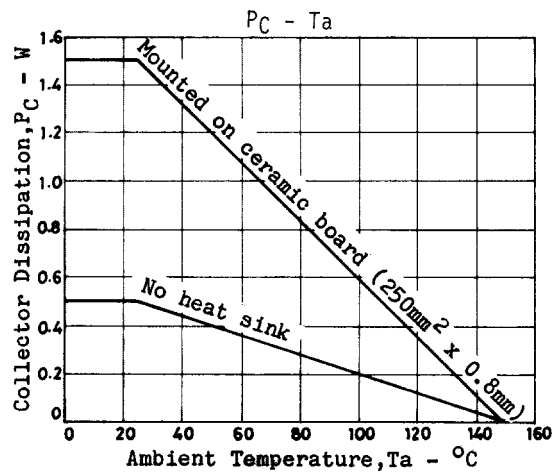
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	25			V
Emitter-to-Base Breakdown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

Electrical Connection



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