Ordering number:EN2016A

NPN Epitaxial Planar Silicon Transistor

2SD1627

Driver Applications

Applications

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

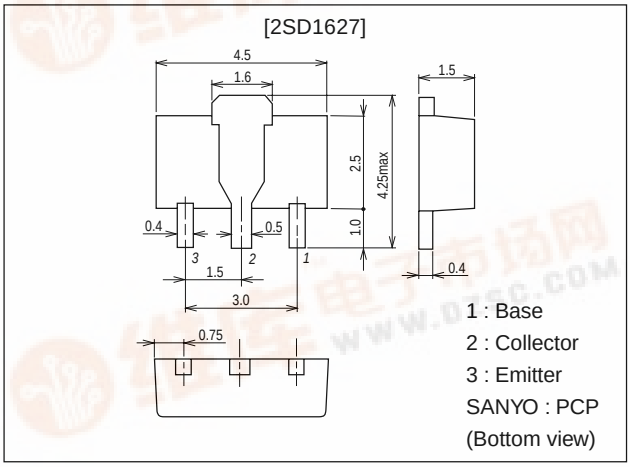
Features

· High DC current gain (h_{FE}≥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_{CBO}		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 (250mm²×0.8mm)	1.5	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–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	$h_{FE}1$	V_{CE}=2V, I_C=500mA	4000			
	$h_{FE}2$	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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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=10μA, I_E=0	30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	25			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	10			V

Electrical Connection