

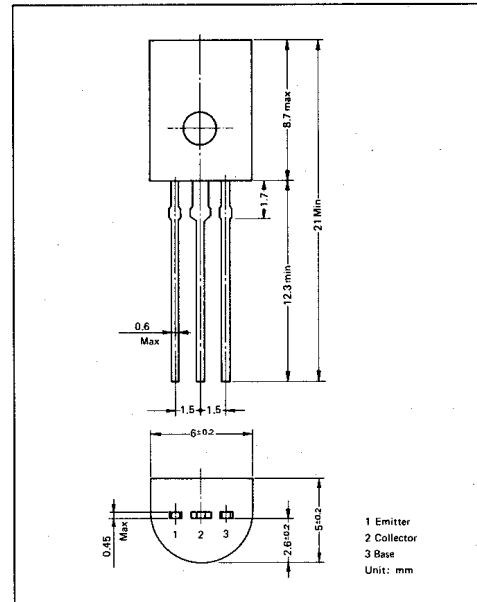
2SD1015

Silicon NPN LEC Symmetry Transistor

- モータ回転制御、アナログスイッチ
- $V_{CEO}, V_{ECO}, V_{ECO} \geq 50 \text{ V}$
- $V_{CE(sat)}, V_{EC(sat)} \leq 0.5 \text{ V}$ at $I_C = 1 \text{ A}$
 $I_B = 10 \text{ A}$
- $h_{FE}, h_{FER} 150 \sim 1500$

絶対最大定格 Absolute Maximum Ratings $T_a = 25^\circ \text{C}$

Characteristics	Symbol	2SD1015
Collector-to-Base Voltage	V_{CBO}	140 V
Collector-to-Emitter Voltage	V_{CEO}	50 V
Emitter-to-Collector Voltage	V_{ECO}	50 V
Emitter-to-Base Voltage	V_{EBO}	50 V
Collector Current	I_C	2 A
Peak Collector Current	$I_C(\text{peak})$	5 A (0.1 Sec.)
Emitter Current	I_E	2 A
Base Current	I_B	0.5 A
Junction Temperature	T_j	150°C
Storage Temperature	T_{stg}	-50 ~ 150°C
Collector Power Dissipation	P_C	900 mW



電気的特性 Electrical Characteristics $T_a = 25^\circ \text{C}$

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 100 \text{ V}$			2.0	μA
Collector-to-Emitter Sustaining Voltage	V_{CEO}	$I_C = 2 \text{ mA}$	50			V
Collector-to-Base Voltage	V_{CBO}	$I_C = 0.1 \text{ mA}$	140			V
Emitter-to-Collector Voltage	V_{ECO}	$I_E = 2 \text{ mA}$	50			V
Emitter-to-Base Voltage	V_{EBO}	$I_E = 0.1 \text{ mA}$	50			V
Collector-to-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 1 \text{ A}$ $I_B = 10 \text{ mA}$			0.5	V
Emitter-to-Collector Saturation Voltage	$V_{EC(SAT)}$	$I_E = 1 \text{ A}$ $I_B = 10 \text{ mA}$			0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = 1 \text{ A}$ $I_B = 10 \text{ mA}$			1.5	V
Forward DC Current Gain	h_{FE1}	$I_C = 10 \text{ mA}$ $V_{CE} = 2 \text{ V}$	150		1500	
Reverse DC Current Gain	h_{FER1}	$I_E = 10 \text{ mA}$ $V_{EC} = 2 \text{ V}$	150		1500	
Forward Pulse Current Gain	h_{FE2}	$I_C = 2 \text{ A}$ $V_{CE} = 2 \text{ V}$	100			
Reverse Pulse Current Gain	h_{FER2}	$I_E = 2 \text{ A}$ $V_{EC} = 2 \text{ V}$	100			
Thermal Resistance	θ_{j-a}				140	$^\circ\text{C/W}$