



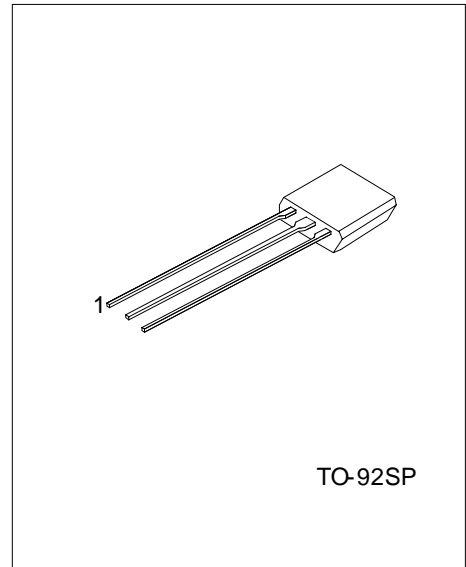
2SD2470

NPN SILICON TRANSISTOR

STROBO AND DC/DC CONVERTERS

■ FEATURES

- * Low saturation voltage
 $V = 0.25V(\text{typ})$ at $I_C/I_B = 3A/0.1A$
- * Collector current of 5A is possible



*Pb-free plating product number: 2SD2470L

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2SD2470-x-T9S-K	2SD2470L-x-T92-K	TO-92SP	E	C	B	Bulk

<p>2SD2470L-x-T9S-K</p>	<p>(1) K: Bulk (2) T9S: TO-92SP (3) refer to Classification of h_{FE} (4) L: Lead Free Plating Blank: Pb/Sn</p>
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2SD2470

NPN SILICON TRANSISTOR

■ ABSOLUTE MAXIMUM RATING (Ta=25)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	15	V
Collector-Emitter Voltage	V_{CEO}	10	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current (DC)	I_C	5	A
Collector Current (PULSE)*	I_{CP}	8	A
Collector Power Dissipation	P_C	0.4	W
Junction Temperature	T_J	+150	
Storage Temperature	T_{STG}	-55 ~ +150	

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

* Single Pulse =10ms

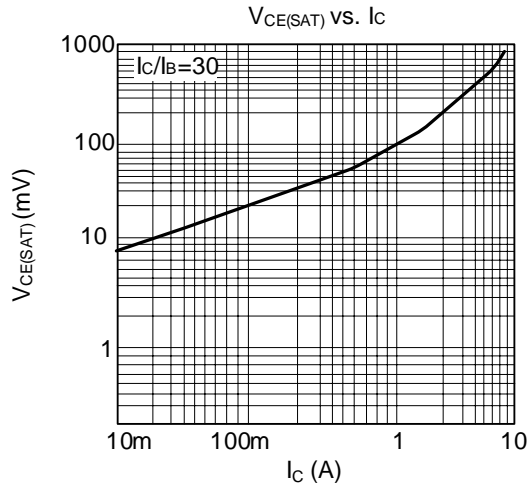
■ ELECTRICAL CHARACTERISTICS (Ta=25 , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV_{CBO}	$I_C = 50\mu A$	15			V
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1mA$	10			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E = 50\mu A$	10			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 10V, I_E = 0$			0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = 8V, I_C = 0$			0.5	μA
DC Current Gain	h_{FE}	$V_{CE} = 2V, I_C = 2A$	270		820	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C / I_B = 3A / 0.1A$		0.25	0.5	V
Transition Frequency	f_T	$V_{CE} = 6V, I_E = 0.05A, f = 100MHz$		170		MHz
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0A, f = 1MHz$		30		pF

■ CLASSIFICATION OF h_{FE}

RANK	S	E
RANGE	270~560	450~820

TYPICAL CHARACTERISTICS



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