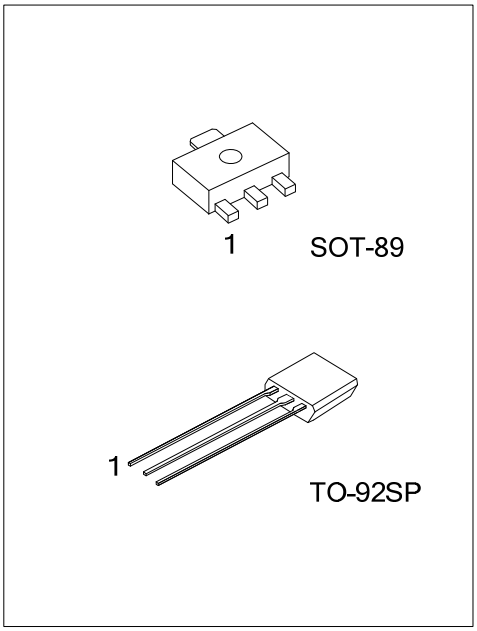
2SD2470

NPN SILICON TRANSISTOR

STROBO AND DC/DC CONVERTERS



■ FEATURES

* Low saturation voltage
  V= 0.25V(typ) at I_C/I_B= 3A/0.1A
* Collector current of 5A is possible

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
-	2SD2470G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SD2470L-x-T9S-B	2SD2470G-x-T9S-B	TO-92SP	E	C	B	Tape Box
2SD2470L-x-T9S-K	2SD2470G-x-T9S-K	TO-92SP	E	C	B	Bulk

Note: Pin Assignment: E: Emitter C: Collector B: Base

2SD2470G-x-AB3-R (1)Packing Type (2)Package Type (3)Rank (4)Green Package	(1) R: Tape Reel, B: Tape Box, K: Bulk (2) AB3: SOT-89, T9S: TO-92SP (3) refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

SOT-89	TO-92SP
□□□□ 2SD2470G → Data Code 1	UTC SD2470□ → L: Lead Free, G: Halogen Free □□□ → Data Code 1

■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise noted)

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) (Note 2)		I_{CP}	8	A
Collector Power Dissipation	SOT-89	P_C	0.5	W
	TO-92SP		0.4	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Note: 1. 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.
2. Single Pulse =10ms

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	BV_{CBO}	I_C= 50μA	15			V
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C= 1mA	10			V
Emitter Base Breakdown Voltage	BV_{EBO}	I_E=50μA	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= 0 A, f=1MHz		30		pF

■ CLASSIFICATION OF h_{FE}

RANK	S	E
RANGE	270~560	450~820

■ TYPICAL CHARACTERISTICS