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2SD476(K), 2SD476A(K)

Silicon NPN Triple Diffused

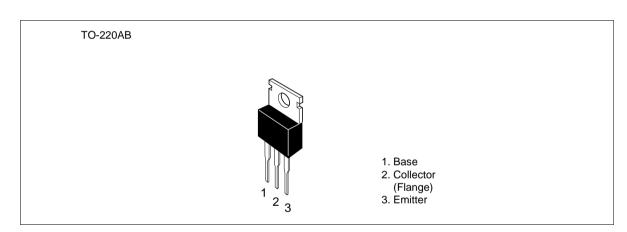


ADE-208-898 (Z) 1st. Edition September 2000

Application

Power switching complementary pair with 2SB566(K) and 2SB566A(K)

Outline



Absolute Maximum Ratings $(Ta = 25^{\circ}C)$

		Ratings			
Item	Symbol	2SD476(K)	2SD476A(K)	 Unit	
Collector to base voltage	V_{CBO}	70	70	V	
Collector to emitter voltage	V _{CEO}	50	60	V	
Emitter to base voltage	V_{EBO}	5	5	V	
Collector current	I _c	4	4	A	
Collector peak current	I _{C(peak)}	8	8	A	
Collector power dissipation	P _C *1	40	40	W	
Junction temperature	Tj	150	150	°C	
Storage temperature	Tstg	-55 to +150	-55 to +150	°C	

Note: 1. Value at $T_c = 25^{\circ}C$

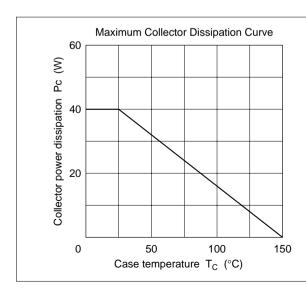
2SD476(K), 2SD476A(K)

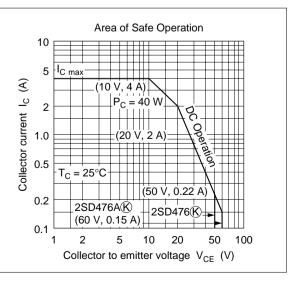
Electrical Characteristics ($Ta = 25^{\circ}C$)

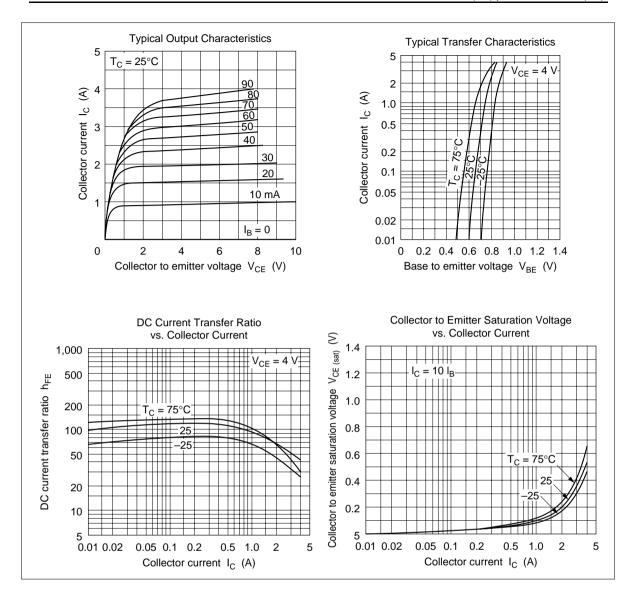
		2SD4	76(K)		2SD476A(K)				
Item	Symbol	Min	Тур	Max	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	70	_	_	70	_	_	V	$I_{C} = 10 \mu A, I_{E} = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	_	_	60	_		V	I_{C} = 50 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	_	_	5	_		V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I _{CBO}	_	_	1	_	_	1	μΑ	$V_{CB} = 50 \text{ V}, I_{E} = 0$
DC current transfer ratio	h _{FE1}	60	_	200	60	_	200		$V_{CE} = 4 \text{ V}, I_{C} = 1 \text{ A}$ (Pulse test)
	h _{FE2}	35	_	_	35	_	_		$V_{CE} = 4 \text{ V}, I_{C} = 0.1 \text{ A}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	1.0	_	_	1.0	V	$I_{\rm C} = 2 \text{ A}, I_{\rm B} = 0.2 \text{ A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	_	_	1.2	_	_	1.2	V	_
Gain bandwidth product	f _T	_	7	_	_	7	_	MHz	$V_{CE} = 4 \text{ V}, I_{C} = 0.5 \text{ A}$
Turn on time	t _{on}	_	0.3	_	_	0.3	_	μs	V _{CC} = 10.5 V
Turn off time	t _{off}	_	3.0	_	_	3.0	_	μs	$I_{\rm C} = 10 I_{\rm B1} = -10 I_{\rm B2} =$
Storage time	t _{stg}		2.5	_		2.5		μs	0.5 A

Note: 1. The 2SD476(K) and 2SD476A(K) are grouped by h_{FE1} as follows.

В	С
60 to 120	100 to 200







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