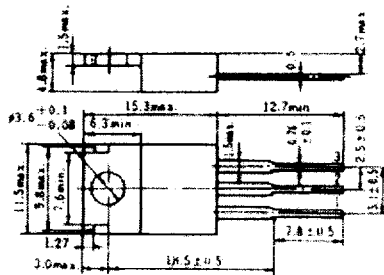


2SD476K, 2SD476AK

SILICON NPN TRIPLE DIFFUSED

POWER SWITCHING

COMPLEMENTARY PAIR WITH 2SB566K and 2SB566AK



1. Base
 2. Collector (Flange)
 3. Emitter
- (Dimensions in mm)

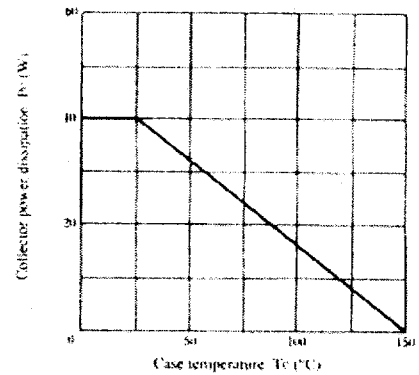
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD476K	2SK476AK	Unit
Collector to base voltage	VCBO	70	70	V
Collector to emitter voltage	VCEO	50	60	V
Emitter to base voltage	VEBO	5	5	V
Collector current	IC	4	4	A
Collector peak current	IC(peak)	8	8	A
Collector power dissipation	PC*	40	40	W
Junction temperature	Tj	150	150	°C
Storage temperature	Tstg	-55 to +150	-55 to +150	°C

* Value at Tc = 25°C.

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

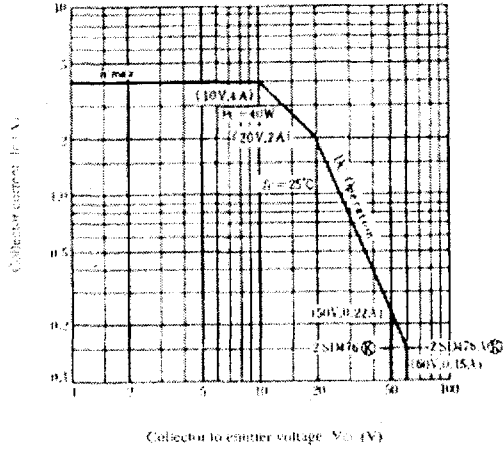
Item	Symbol	Test Condition	2SD476K			2SD476AK			Unit
			min.	typ.	max.	min.	typ.	max.	
Collector to base breakdown voltage	V(BR)CBO	IC = 10μA, IE = 0	70	—	—	70	—	—	V
Emitter to emitter breakdown voltage	V(BR)CEO	IC = 50mA, REE = ∞	50	—	—	60	—	—	V
Emitter to base breakdown voltage	V(BR)EBO	IE = 10μA, IC = 0	5	—	—	5	—	—	V
Collector cutoff current	ICBO	VCE = 50V, IE = 0	—	—	1	—	—	1	μA
DC current transfer ratio	hFE1	VCE = 4V, IC = 1A (Pulse Test)	60	—	200	60	—	200	
	hFE2	VCE = 4V, IC = 0.1A	35	—	—	35	—	—	
Collector to emitter saturation voltage	VCE(sat)	IC = 2A, IB = 0.2A	—	—	1.0	—	—	1.0	V
Base to emitter saturation voltage	VBE(sat)		—	—	1.2	—	—	1.2	V
Gain bandwidth product	fT	VCE = 4V, IC = 0.5A	—	7	—	—	7	—	MHz
Turn on time	ton	VCC = 10.5V	—	0.3	—	—	0.3	—	μs
Turn off time	toff	IC = 10Im1 = -10Im2 = 0.5A	—	3.0	—	—	3.0	—	μs
Storage time	tstg		—	2.5	—	—	2.5	—	μs

* The 2SD476K and 2SD476AK are grouped by hFE1 as follows.

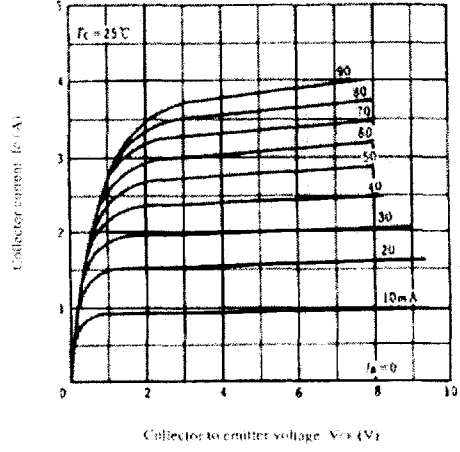
B	C
60 to 120	100 to 200

2SD476K, 2SD476AK

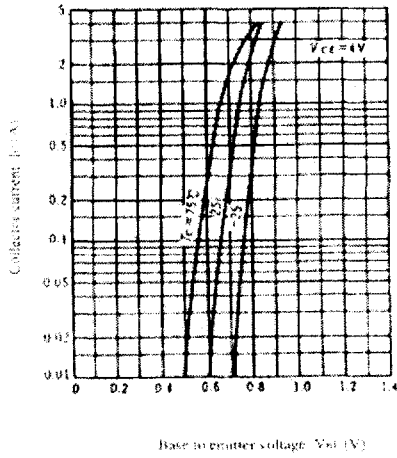
AREA OF SAFE OPERATION



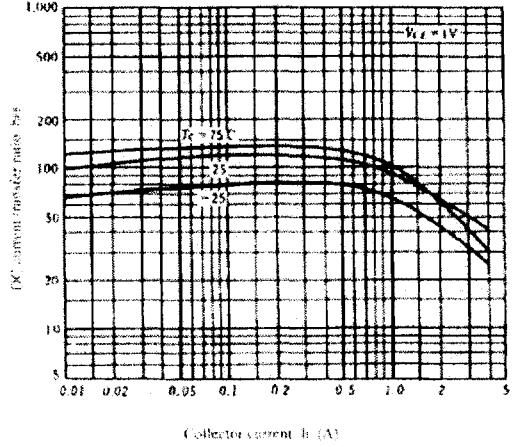
TYPICAL OUTPUT CHARACTERISTICS



TYPICAL TRANSFER CHARACTERISTICS



DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT

