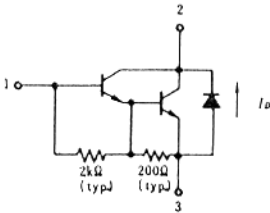
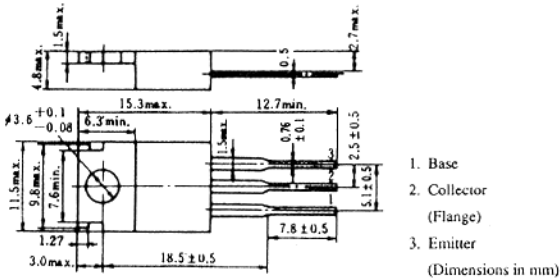


2SD1248 K

SILICON NPN TRIPLE DIFFUSED
LOW FREQUENCY POWER AMPLIFIER



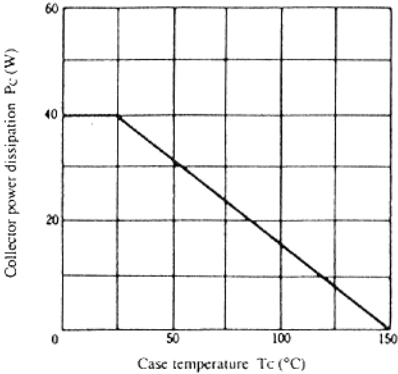
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1248 K	Unit
Collector to base voltage	VCBO	120	V
Collector to emitter voltage	VCEO	120	V
Emitter to base voltage	VEBO	7	V
Collector current	IC	8	A
Collector peak current	ic(peak)	12	A
C to E diode forward current	ID*	8	A
Collector power dissipation	PC*	40	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

* Value at Tc = 25°C.

MAXIMUM COLLECTOR DISSIPATION
CURVE



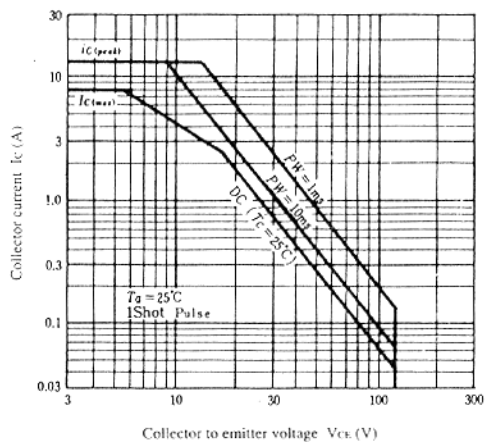
■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	V(BR)CEO	IC = 25mA, RBE = ∞	120	—	—	V
Emitter to base breakdown voltage	V(BR)EBO	IE = 100mA, IC = 0	7	—	—	V
Collector cutoff current	ICBO	VCB = 120V, IE = 0	—	—	100	μA
	ICEO	VCE = 100V, RBE = ∞	—	—	10	μA
DC current transfer ratio	hFE	VCE = 3V, IC = 4A*	1000	—	20000	
Collector to emitter saturation voltage 1	VCE(sat)1	IC = 4A, IB = 8mA*	—	—	1.5	V
Base to emitter saturation voltage 1	VBE(sat)1	IC = 4A, IB = 8mA*	—	—	2.0	V
Collector to emitter saturation voltage 2	VCE(sat)2	IC = 8A, IB = 80mA*	—	—	3.0	V
Base to emitter saturation voltage 2	VBE(sat)2	IC = 8A, IB = 80mA*	—	—	3.5	V
C to E diode forward voltage	VD	ID = 8A*	—	—	3.0	V

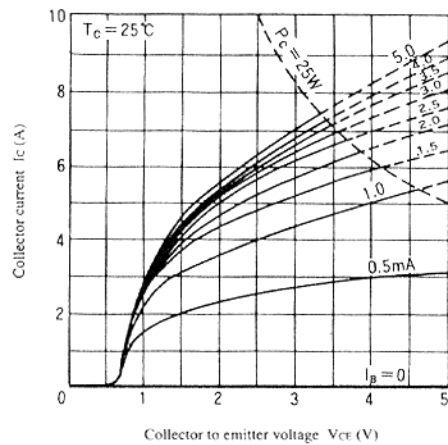
* Pulse Test.

2SD1248(K)

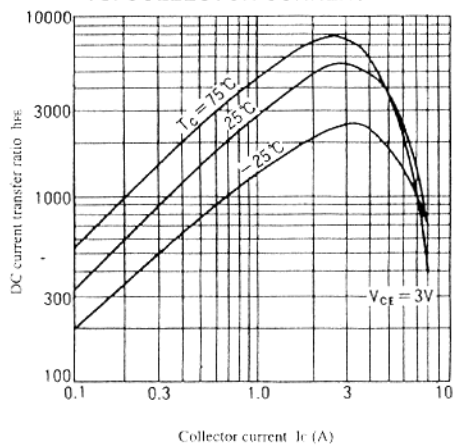
AREA OF SAFE OPERATION



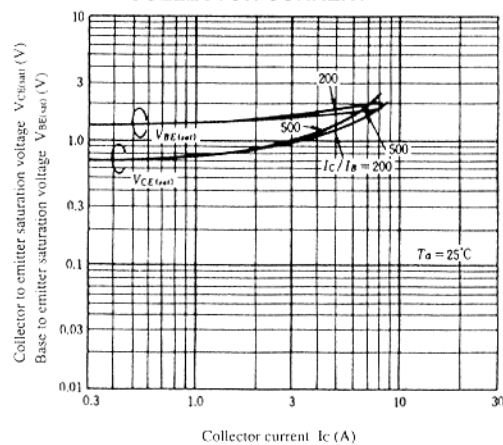
TYPICAL OUTPUT CHARACTERISTICS



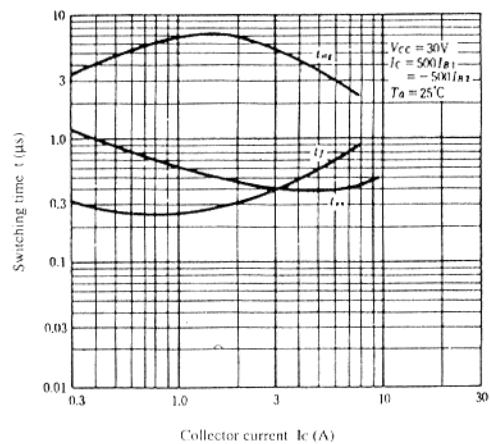
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



SATURATION VOLTAGE VS. COLLECTOR CURRENT



SWITCHING TIME VS. COLLECTOR CURRENT



TRANSIENT THERMAL RESISTANCE

