

2SD664

SILICON NPN TRIPLE DIFFUSED TYPE
(DARLINGTON POWER)

HIGH POWER SWITCHING APPLICATIONS.

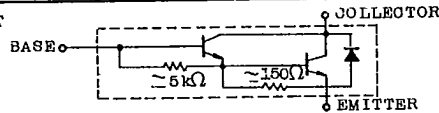
FEATURES:

- High DC Current Gain
: $h_{FE}=2000(\text{Min.})(V_{CE}=3V, I_C=3A)$
- Low Saturation Voltage
: $V_{CE}(\text{sat})=1.5V(\text{Max.})(I_C=3A)$
- Monolithic Construction with Built-In Base-Emitter Shunt Resistor.

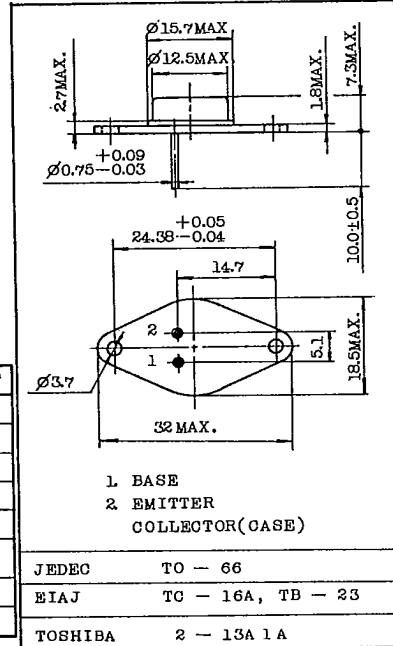
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	80	V
Collector-Emitter Voltage	V _{CEO}	80	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	7	A
Base Current	I _B	0.2	A
Collector Power Dissipation (T _c =25°C)	P _C	40	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-65~150	°C

EQUIVALENT CIRCUIT



Unit in mm

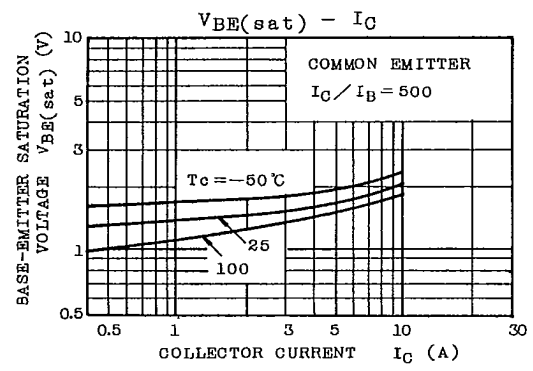
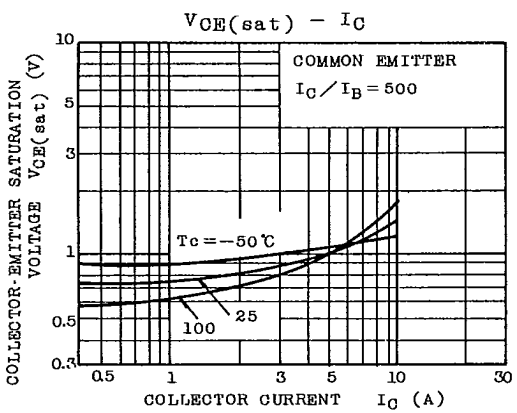
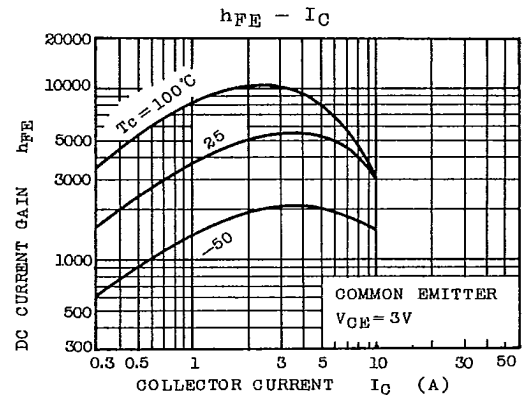
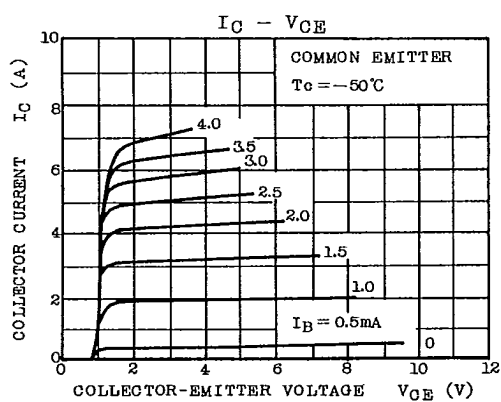
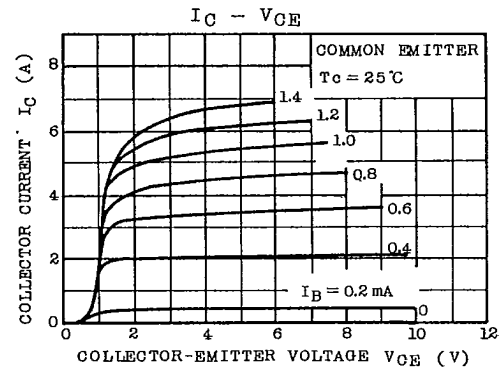
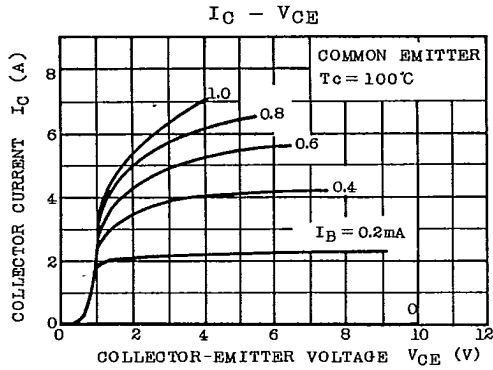


Mounting Kit No. AC74
Weight : 5.9g

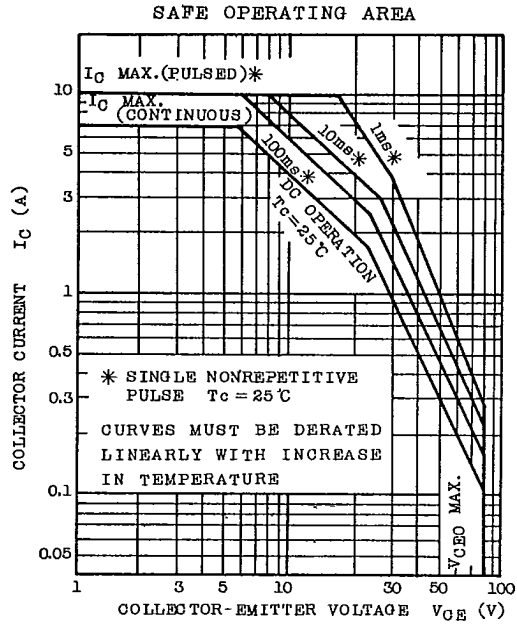
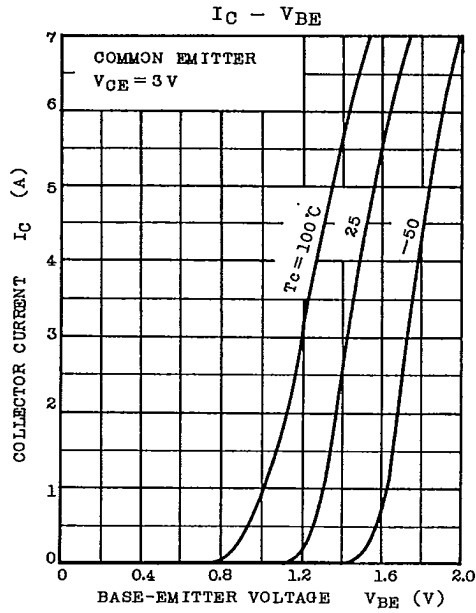
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I _{CB0}	V _{CB} =80V, I _E =0	-	-	100	μA
Emitter Cut-off Current		I _{EBO}	V _{EB} =5V, I _C =0	-	-	3	mA
Collector-Emitter Breakdown Voltage		V(BR) _{CEO}	I _C =50mA, I _B =0	80	-	-	V
DC Current Gain		h _{FE} (1)	V _{CE} =3V, I _C =3A	2000	-	15000	
		h _{FE} (2)	V _{CE} =3V, I _C =7A	1000	-	-	
Collector-Emitter Saturation Voltage		V _{CE} (sat)(1)	I _C =3A, I _B =6mA	-	0.9	1.5	V
		V _{CE} (sat)(2)	I _C =7A, I _B =14mA	-	1.2	2.0	
Base-Emitter Saturation Voltage		V _{BE} (sat)	I _C =3A, I _B =6mA	-	1.5	2.5	V
Switching Time	Turn-on Time	t _{on}		-	0.8	-	μs
	Storage Time	t _{stg}		-	3.0	-	
	Fall Time	t _f		-	2.5	-	

TOSHIBA CORPORATION



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