

2SD878

SILICON NPN TRIPLE DIFFUSED TYPE

INDUSTRIAL APPLICATIONS

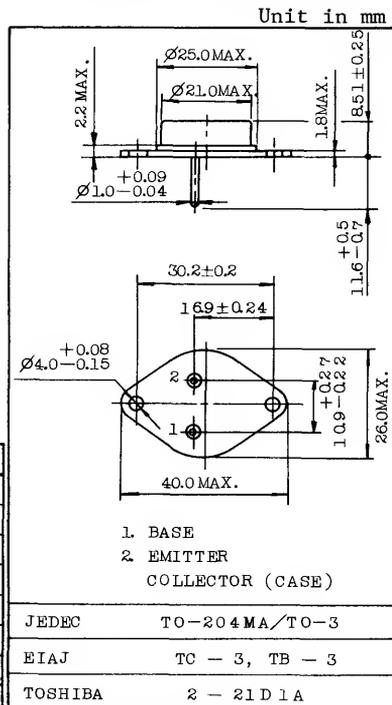
HIGH POWER AMPLIFIER APPLICATIONS.
 HIGH POWER SWITCHING APPLICATIONS.
 DC-DC CONVERTER APPLICATIONS.
 REGULATOR APPLICATIONS.

FEATURES:

- High Power Dissipation : $P_C=115W$ ($T_c=25^\circ C$)
- High Collector Current : $I_C=15A$
- Low Saturation Voltage : $V_{CE(sat)}=0.3V$ (Typ.) ($I_C=4A$)

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	100	V
Collector-Emitter Voltage	V_{CE0}	60	V
Emitter-Base Voltage	V_{EB0}	7	V
Collector Current	I_C	15	A
Base Current	I_B	7	A
Collector Power Dissipation ($T_c=25^\circ C$)	P_C	115	W
Junction Temperature	T_j	175	$^\circ C$
Storage Temperature Range	T_{stg}	-65~175	$^\circ C$

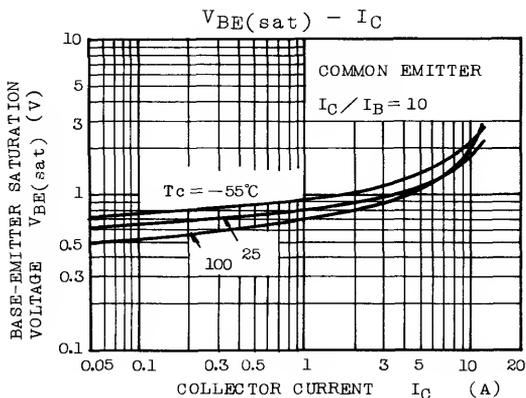
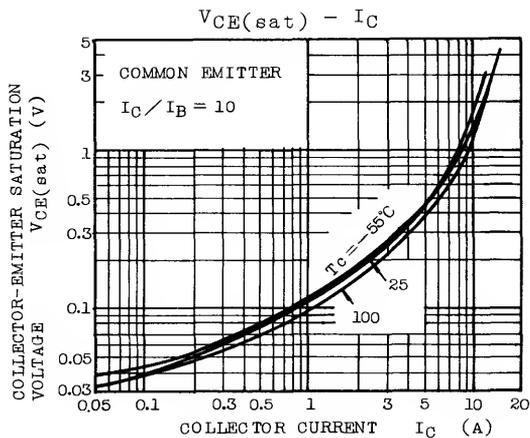
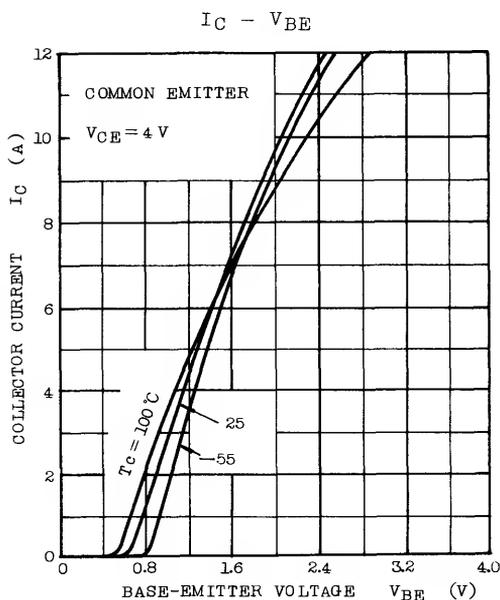
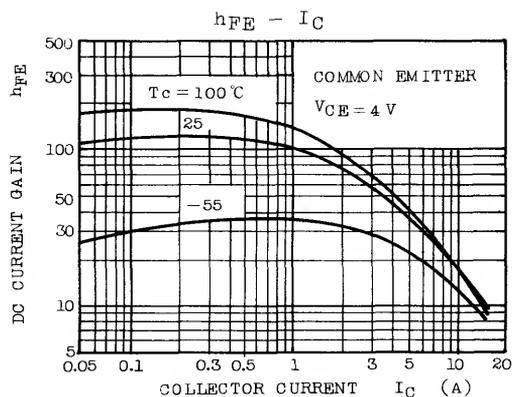
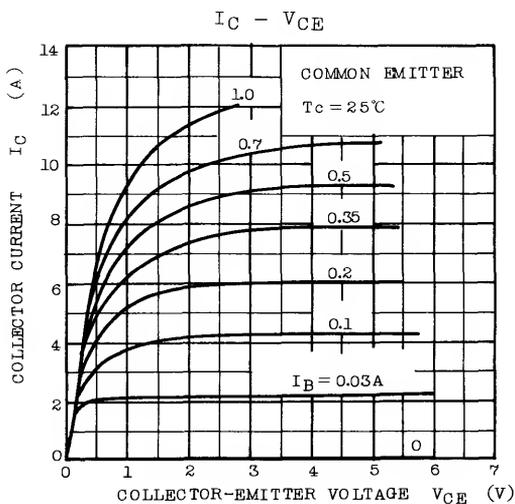


Mounting Kit No. AC73
 Weight : 12.6g

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CB0}	$V_{CB}=100V, I_E=0$	-	-	100	μA
Emitter Cut-off Current	I_{EB0}	$V_{EB}=7V, I_C=0$	-	-	100	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	60	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=4V, I_C=4A$	20	-	70	
	$h_{FE(2)}$	$V_{CE}=4V, I_C=10A$	5	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4A, I_B=0.4A$	-	0.3	1.1	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=4V, I_C=4A$	-	1.1	1.8	V
Transition Frequency	f_T	$V_{CE}=4V, I_C=1A$	-	1.5	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	150	-	pF
Switching Time	Turn-on Time	t_{on}	-	2.5	-	μs
	Storage Time	t_{stg}	-	3.5	-	
	Fall Time	t_f	-	1.2	-	

$I_{B1} = -I_{B2} = 0.5A$
 DUTY CYCLE $\leq 1\%$
 $V_{CE} = 50V$



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