

9097250 TOSHIBA (DISCRETE/OUTPUT)

SILICON NPN TRIPLE DIFFUSED MESA TYPE

## S2818 S2818A

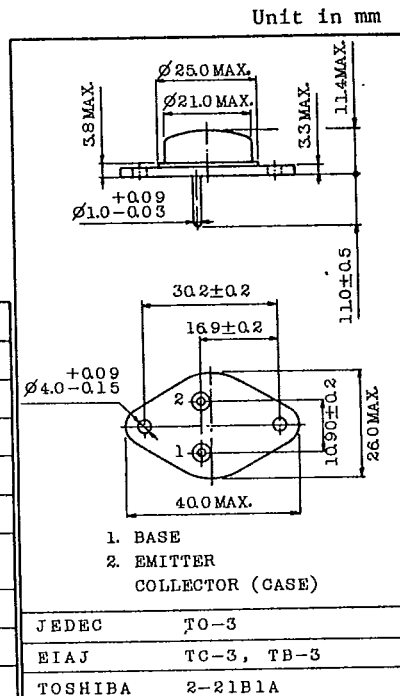
COLOR TV HORIZONTAL OUTPUT APPLICATIONS.

**FEATURES:**

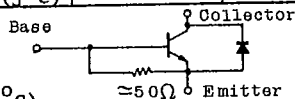
- High Voltage :  $V_{CES}=1500V$
- Low Saturation Voltage :  $V_{CE(sat)}=1V$  (Max.) (S2818A)
- High Speed :  $t_f=0.7\mu s$  (Typ.)
- Built-in Damper Type.
- Glass Passivated Collector-Base Junction.

**MAXIMUM RATINGS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	$V_{CES}$	1500	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	DC	$I_C$	5 A
	Peak	$I_{CM}$	7.5 A
Base Current (Peak)	$I_{BM}$	4	A
Total Power Dissipation (Tc ≤ 95°C)	$P_{tot}$	12.5	W
Junction Temperature	$T_j$	+115	°C
Storage Temperature Range	$T_{stg}$	-65 ~ 115	°C
Thermal Resistance	$R_{th(j-c)}$	1.6	°C/W



**EQUIVALENT CIRCUIT**



Mounting Kit No. AC42C

Weight : 17.0g

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	$I_{CES}$	$V_{CE}=1500V, V_{BE}=0$	-	-	1	mA	
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=200mA, I_C=0$	5	-	-	V	
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=4.5A$	2.25	-	-		
Collector-Emitter Saturation Voltage	S2818	$V_{CE(sat)}$	$I_C=4.5A, I_B=2A$	-	-	5	V
	S2818A			-	-	1	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=4.5A, I_B=2A$	-	-	1.5	V	
Forward Voltage (Diode)	$-V_F$	$I_F=5A$	-	1.4	2.0	V	
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C=100mA, I_B=0, L=25mH$	700	-	-	V	
Transition Frequency	$f_T$	$V_{CE}=5V, I_C=0.1A$	-	7	-	MHz	
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	125	-	pF	
Switching Time	Fall Time	$t_f$	-	0.7	-	$\mu s$	
	Storage Time	$t_{stg}$	-	10	-	$\mu s$	

TOSHIBA CORPORATION