

2SC4762

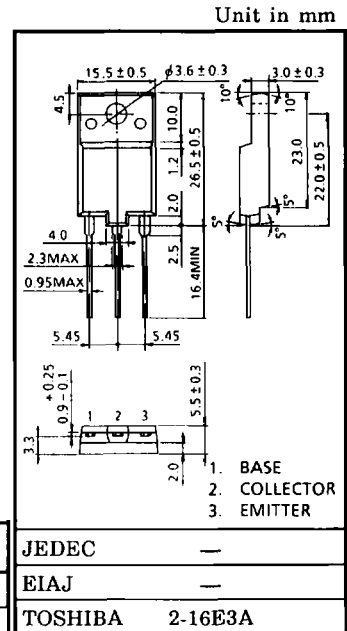
SILICON NPN TRIPLE DIFFUSED MESA TYPE

HORIZONTAL DEFLECTION OUTPUT FOR MEDIUM RESOLUTION DISPLAY.

- High Speed : $t_f = 0.2 \mu s$ (Typ.) ($I_{CP} = 5A$, $I_{B1}(\text{end}) = 1A$)
- High Voltage : $V_{CB0} = 1500V$ (MAX.)
- Low Saturation Voltage : $V_{CE}(\text{sat}) = 5V$ (Max.) ($I_C = 5A$, $I_B = 1A$)
- Built-in Damper Diode.
- Glass Passivated Collector-Base Junction.
- Collector Metal (Fin) is Fully Covered with Mold Resin.

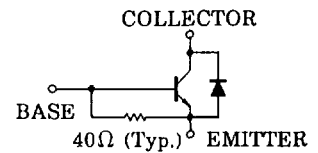
MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	1500	V
Collector-Emitter Voltage	V_{CEO}	600	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	DC	I_C	± 7
	Pulse	I_{CP}	± 14
Base Current	I_B	3.5	A
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	50	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



Weight : 5.5g

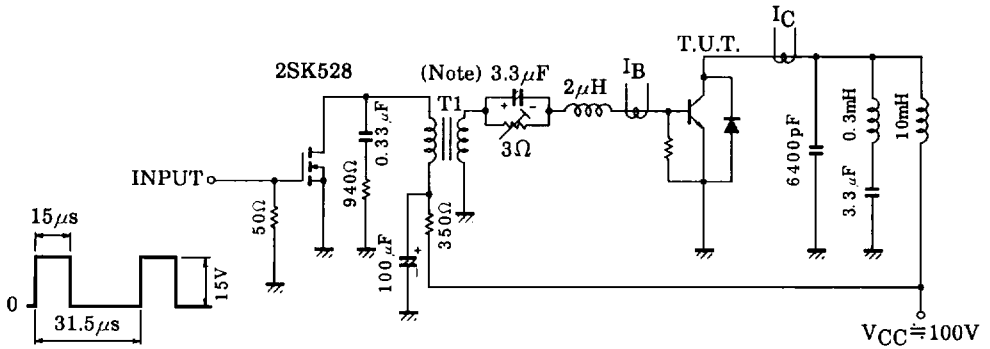
EQUIVALENT CIRCUIT



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current			I_{CBO}	$V_{CB} = 1500V, I_E = 0$	—	—	1	mA
Emitter Cut-off Current			I_{EBO}	$V_{EB} = 5V, I_C = 0$	83	—	250	mA
Emitter-Base Breakdown Voltage			V_{EBO}	$I_C = 300mA, I_C = 0$	5	—	—	V
DC Current Gain			$h_{FE}(1)$	$V_{CE} = 5V, I_C = 1A$	8	12	—	
			$h_{FE}(2)$	$V_{CE} = 5V, I_C = 5A$	5	—	9	
Collector-Emitter Saturation Voltage			$V_{CE(sat)}$	$I_C = 5A, I_B = 1A$	—	—	5	V
Base-Emitter Saturation Voltage			$V_{BE(sat)}$	$I_C = 5A, I_B = 1A$	—	—	1.5	V
Forward Voltage (Damper Diode)			$-V_F$	$I_F = 5A$	—	1.25	1.8	V
Transition Frequency			f_T	$V_{CE} = 10V, I_C = 0.1A$	1	3	—	MHz
Collector Output Capacitance			C_{ob}	$V_{CB} = 10V, I_E = 0,$ $f = 1MHz$	—	170	—	pF
Switching Time	Inductive Load (Fig.1)	Storage Time	t_{stg}	$I_{CP} = 5A, I_{B1}(end) = 1A,$ $f_H = 31.5kHz$	—	4.0	5.5	μs
		Fall Time	t_f		—	0.2	0.5	
	Resistive Load (Fig.2)	Storage Time	t_{stg}	$I_C = 5A, I_{B1} = 1A,$ $I_{B2} = -2A, R_L = 39\Omega$	—	1.8	3.0	
		Fall Time	t_f		—	0.1	0.2	

Fig.1 SWITCHING TIME TEST CIRCUIT (Inductive load)



Note : Leakage Inductance of secondary winding LB is 1.2μH.

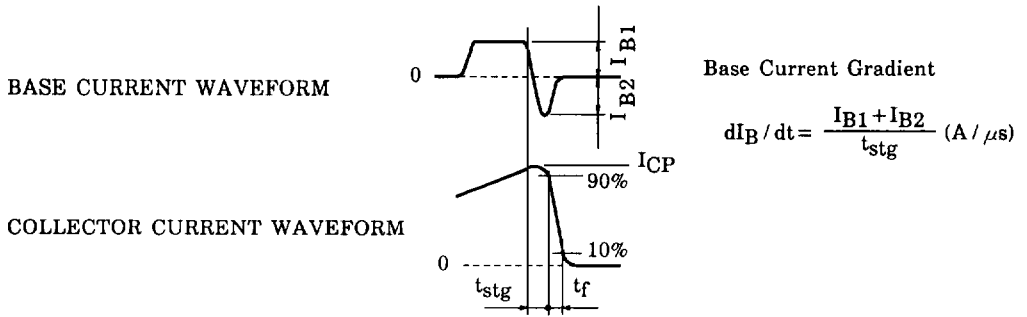


Fig.2 SWITCHING TIME TEST CIRCUIT (Resistive load)

