

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED PLANAR TYPE

2SC4686, 2SC4686A

TV DYNAMIC FOCUS APPLICATIONS

HIGH VOLTAGE SWITCHING APPLICATIONS

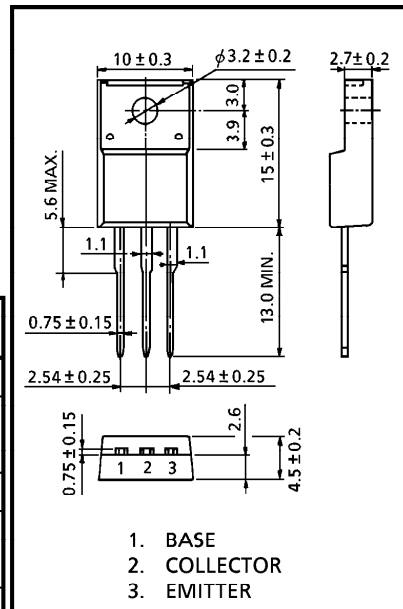
HIGH VOLTAGE AMPLIFIER APPLICATIONS

- High Voltage : $V_{CEO} = 1200V$ (Max.)
- Small Collector Output Capacitance : $C_{ob} = 2.2pF$ (Typ.) ($V_{CB} = 100V$)

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	1500	V
Collector-Emitter Voltage	2SC4686	V_{CEO}	1000	V
	2SC4686A		1200	
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	50	mA
	Pulse	I_{CP}	100	
Base Current		I_B	25	mA
Collector Power Dissipation	$T_c = 25^\circ C$	P_C	10	W
	$T_a = 25^\circ C$		2	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$

Unit in mm



JEDEC	—
EIAJ	SC-67
TOSHIBA	2-10R1A

Weight : 1.7g

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

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = 1200V, I_E = 0$	—	—	1.0	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = 5V, I_C = 0$	—	—	10	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	1500	—	—	V
Collector-Emitter Breakdown Voltage	2SC4686	$V_{(BR)CEO}$	$I_C = 1mA, I_B = 0$	1000	—	—	V
	2SC4686A			1200	—	—	
DC Current Gain		h_{FE}	$V_{CE} = 5V, I_C = 3mA$	15	—	60	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 10mA, I_B = 2mA$	—	0.16	1.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = 10mA, I_B = 2mA$	—	0.7	1.5	V
Transition Frequency		f_T	$V_{CE} = 10V, I_C = 3mA$	—	5.5	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = 100V, f = 1MHz, I_E = 0$	—	2.2	—	pF

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