2SC4686, 2SC4686A

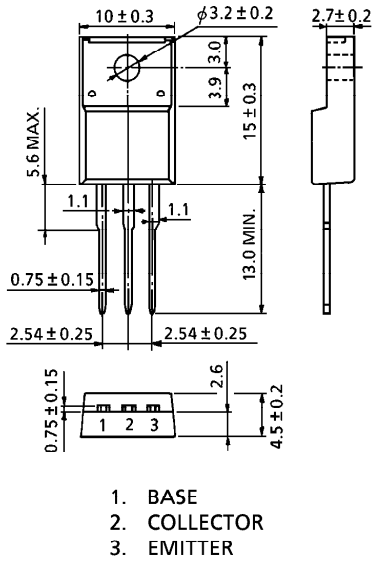
TV DYNAMIC FOCUS APPLICATIONS

HIGH VOLTAGE SWITCHING APPLICATIONS

HIGH VOLTAGE AMPLIFIER APPLICATIONS

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

Unit in mm



JEDEC	—
EIAJ	SC-67
TOSHIBA	2-10R1A

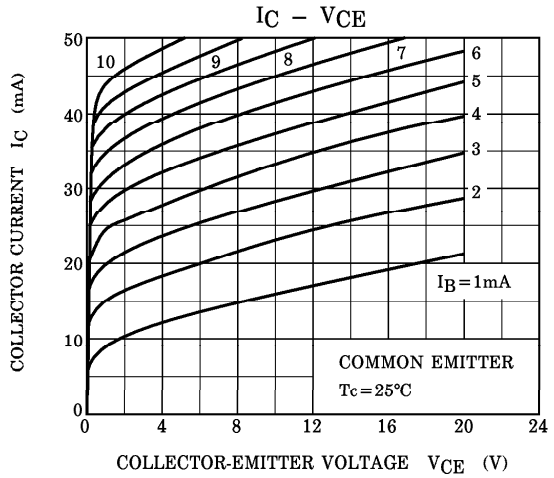
Weight : 1.7g

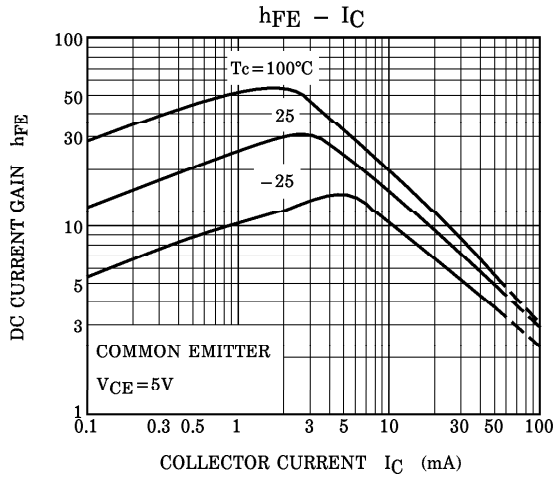
MAXIMUM RATINGS (Ta = 25°C)

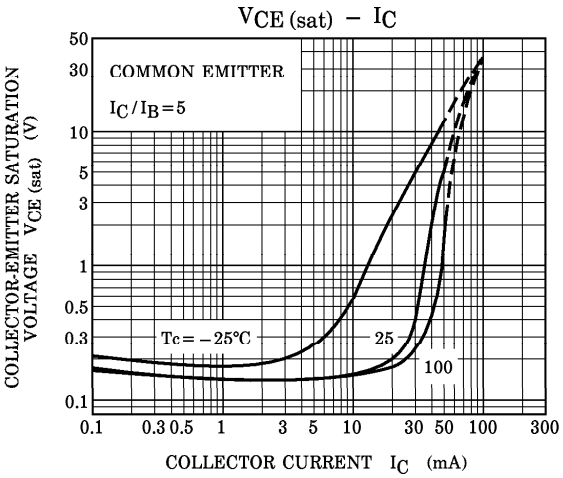
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	1500	V
Collector-Emitter Voltage	2SC4686	V_{CEO}	1000	V
	2SC4686A		1200	
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	50	mA
	Pulse	I_{CP}	100	
Base Current		I_B	25	mA
Collector Power Dissipation	Tc=25°C	P_C	10	W
	Ta=25°C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

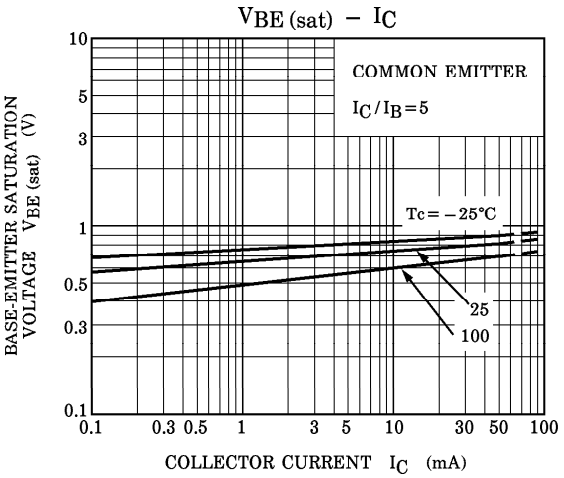
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

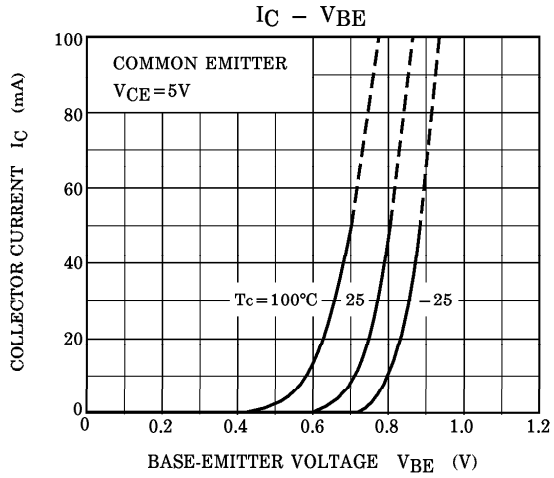
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=1200V$, $I_E=0$	—	—	1.0	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=5V$, $I_C=0$	—	—	10	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=100\mu A$, $I_E=0$	1500	—	—	V
Collector-Emitter Breakdown 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

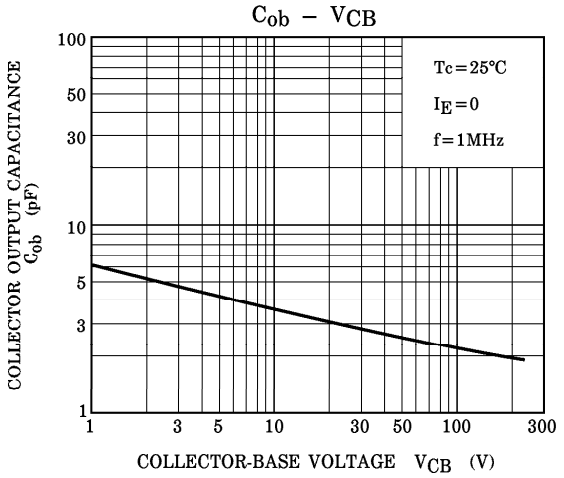

IC – VCE
COLLECTOR CURRENT IC (mA)
COLLECTOR-EMITTER VOLTAGE VCE (V)
10
9
8
7
6
5
4
3
2
IB=1mA
COMMON EMITTER
Tc=25°C


hFE – IC
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)
Tc=100°C
25
–25
COMMON EMITTER
VCE=5V


VCE (sat) – IC
COLLECTOR-EMITTER SATURATION VOLTAGE VCE (sat) (V)
COLLECTOR CURRENT IC (mA)
COMMON EMITTER
IC/IB=5
Tc=–25°C
25
100


VBE (sat) – IC
BASE-EMITTER SATURATION VOLTAGE VBE (sat) (V)
COLLECTOR CURRENT IC (mA)
COMMON EMITTER
IC/IB=5
Tc=–25°C
25
100


IC – VBE
COLLECTOR CURRENT IC (mA)
BASE-EMITTER VOLTAGE VBE (V)
COMMON EMITTER
VCE=5V
Tc=100°C
25
–25


Cob – VCB
COLLECTOR OUTPUT CAPACITANCE Cob (pF)
COLLECTOR-BASE VOLTAGE VCB (V)
Tc=25°C
IE=0
f=1MHz