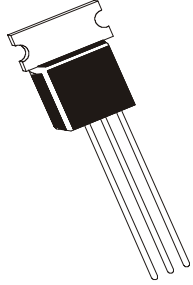


PNP/NPN COMPLEMENTARY PLANAR SILICON TRANSISTORS

**CSA1013 (PNP)
CSC2383 (NPN)
TO-237
BCE**



Vertical Deflection Output & Class B Sound Output Applications of Colour T.V

ABSOLUTE MAXIMUM RATINGS(Ta=25deg C unless otherwise specified)

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Base Voltage	VCBO	160	V
Collector -Emitter Voltage	VCEO	160	V
Emitter Base Voltage	VEBO	6.0	V
Collector Current	IC	1.0	A
Base Current	IB	500	mA
Collector Power Dissipation	PC	900	mW
Operating And Storage Junction Temperature Range	Tj, Tstg	-55 to +150	deg C

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

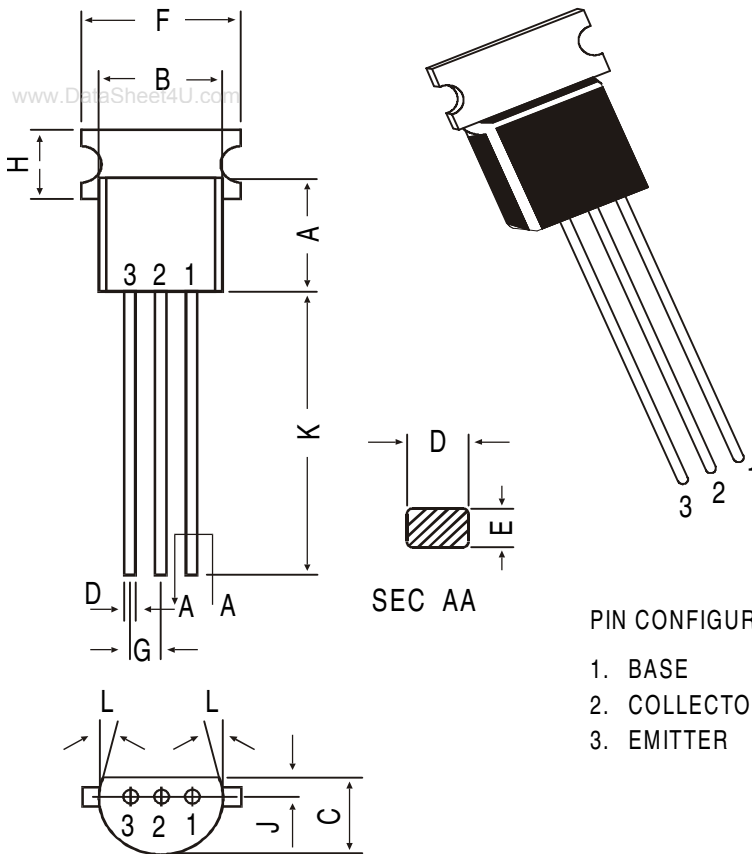
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Voltage	VCEO	IC=10mA, IB=0	160	-	-	V
Collector Cut off Current	ICBO	VCB=150V, IE=0	-	-	1.0	uA
Emitter Cut off Current	IEBO	VEB=6V, IC=0	-	-	1.0	uA
DC Current Gain	hFE*	IC=200mA, VCE=5V	60	-	320	
Collector Emitter Saturation Voltage	VCE(Sat) *	IC=500mA, IB=50mA	-	-	1.5	V
Base Emitter on Voltage	VBE(on)*	IC=5mA, VCE=5V	0.45	-	0.75	V
Dynamic Characteristics						
Output Capacitance	Cob	NPN VCB=10V, IE=0, f=1MHz	-	-	20	pF
		PNP	-	-	35	pF
Gain Bandwidth Product	ft	NPN VCE=5V, IC=200mA,	20	100	-	MHz
		PNP	15	50	-	MHz

CLASSIFICATION

	R	O	Y
hFE *	60-120	100-200	160-320

*Pulse Test : Pulse Width =300us, Duty Cycle=2%

TO-237 Plastic Package



All dimensions in mm.

DIM	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	—	5.40
G	1.14	1.40
H	—	2.54
K	12.70	—
L	5 DEG	
J	1.14	1.53

PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-237 Bulk	1K/polybag	240 gm/1K pcs	3" x 7.5" x 7.5"	5.0K	17" x 15" x 13.5"	80.0K	26.2 kgs
TO-237 T&A	2K/ammo box	725 gm/2K pcs	12.5" x 8" x 1.8"	2.0K	17" x 15" x 13.5"	32.0K	13.8 kgs

Disclaimer

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