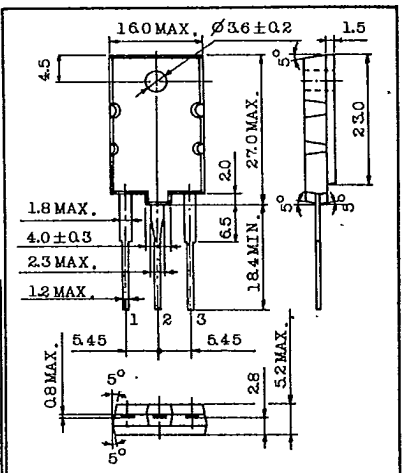
SILICON NPN TRIPLE DIFFUSED MESA TYPE

S2055
S2055A

COLOR TV HORIZONTAL OUTPUT APPLICATIONS.

FEATURES:
- High Voltage : V_{CES}=1500V
- Low Saturation Voltage : $V_{CE(sat)}$=1V(Max.) (S2055A)
- Fall Time : t_f=0.7μs (Typ.)
- Built-in Damper Type
- Glass Passivated Collector-Base Junction

Unit in mm



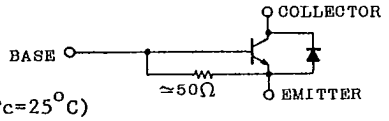
JEDEC	—
EIAJ	—
TOSHIBA	2-16D1A

Weight : 5.2g

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



ELECTRICAL CHARACTERISTICS (Tc=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	S2055	$V_{CE(sat)}$	I_C=4.5A, I_B=2A	-	-	5	V
	S2055A			-	-	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		$V_{CE(SUS)}$	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	I_{CM}=4.5A, $I_{B(end)}$=1.8A	-	0.7	-	μs
	Storage Time	t_{stg}	I_{CM}=4.5A, $I_{B(end)}$=1.8A	-	10	-	μs