

TOSHIBA BIPOLAR DIGITAL INTEGRATED CIRCUIT MULTI-CHIP

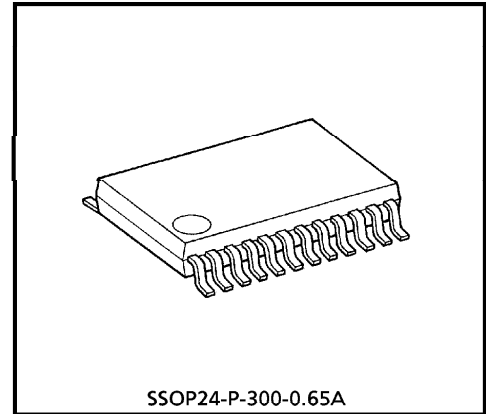
TD62M4503AFN

POWER MOS FET 4CH SINK DRIVER

TD62M4503AFN is 1CHIP 4ch FET Sink Driver built in Discrete Power MOS FET (2SK1078) × 4 and Diodes (1SS184).

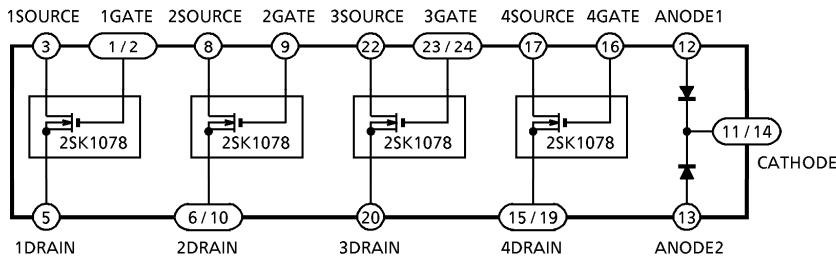
FEATURES

- 4V Drive
- Low ON Resistance : $R_{DS(ON)} = 0.58\Omega$ (Typ.)
- Low Leakage Current
 - : $I_{GSS} = \pm 3\mu A$ (Max.) ($V_{GS} = \pm 16V$)
 - : $I_{GSS} = 100\mu A$ (Max.) ($V_{GS} = 60V$)
- Enhancement Type
 - : $V_{th} = 0.8\sim 2.0V$ ($V_{DS} = 10V, I_D = 1mA$)
- Small Package : VSOP 24 (0.65mm Pitch)

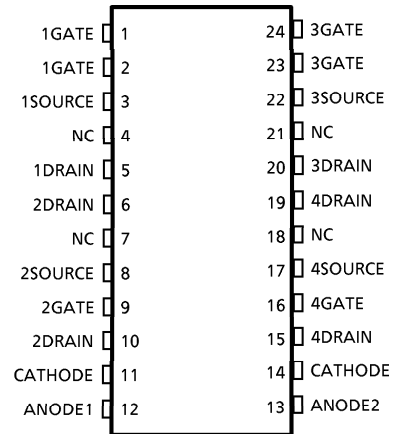


Weight : 0.14g (Typ.)

BLOCK DIAGRAM



PIN CONNECTION (TOP VIEW)



NC : Non Connection
961001EBA2

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MIXMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Drain-Source Voltage		V_{DSS}	60	V
Drain-Gate Voltage ($R_{GS} = 20k\Omega$)		V_{DGR}	60	V
Gate-Source Voltage		V_{GSS}	± 20	V
Drain Current	DC	I_D	0.8	A
	Pulse	I_{DP}	1.6	A
Diode Reverse Voltage		V_R	80	V
Diode Average Rectifier Current		I_O	0.1	A
Power Dissipation	—	P_D	0.78	W
	(Note 1)		0.89	W
Junction Temperature		T_j	150	°C
Operating Temperature		T_{opr}	-40~85	°C
Storage Temperature		T_{stg}	-55~150	°C

(Note 1) On Glass Epoxy PCB (50×50×1.6mm Cu 40%)

This device is an electrostatic sensitivity device. Please handle with caution.

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

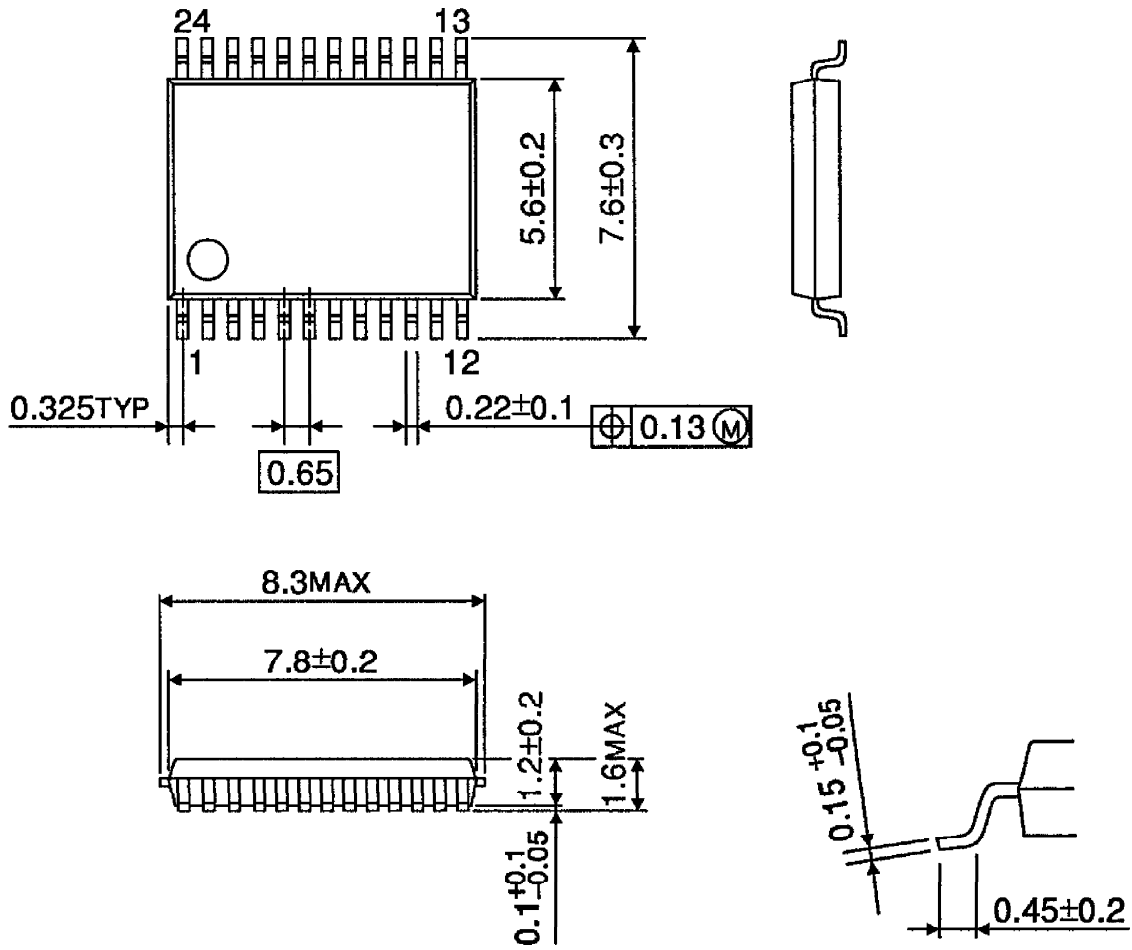
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	—	$V_{GS} = \pm 16V, V_{DS} = 0V$	—	—	± 3	μA
Drain Cut-off Current	I_{DSS}	—	$V_{DS} = 60V, V_{GS} = 0V$	—	—	100	μA
Drain Source Braekdown Voltage	$V(BR)_{DSS}$	—	$I_D = 10mA, V_{GS} = 0V$	60	—	—	V
Gate Thresold Voltage	V_{th}	—	$V_{DS} = 10V, I_D = 1mA$	0.8	—	2.0	V
Drain ON Current	$I_D(ON)$	—	$V_{DS} = 4V, V_{GS} = 4V$	0.8	—	—	A
Drain-Source ON Resistance	$R_{DS(ON)}$	—	$V_{GS} = 4V, I_D = 0.4A$	—	0.75	1.1	Ω
			$V_{GS} = 10V, I_D = 0.4A$	—	0.58	0.70	Ω
Diode Forward Voltage	$V_F(1)$	—	$I_F = 1mA$	—	0.60	—	V
	$V_F(2)$	—	$I_F = 10mA$	—	0.72	—	
	$V_F(3)$	—	$I_F = 100mA$	—	1.0	1.4	
Diode Reverse Current	$I_R(1)$	—	$V_R = 30V$	—	—	0.1	μA
	$I_R(2)$	—	$V_R = 80V$	—	—	0.5	μA

PRECAUTIONS for USING

Utmost care is necessary in the design of the output line, V_{CC} and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.

OUTLINE DRAWING
SSOP24-P-300-0.65A

Unit : mm



Weight : 0.14g (Typ.)