### TOSHIBA DIODE SILICON EPITAXIAL SCHOTTKY BARRIER TYPE

# H N 2 S 0 1 F

#### LOW VOLTAGE HIGH SPEED SWITCHING APPLICATION

HN2S01F is composed of 3 independent diodes.

Low Forward Voltage :  $V_F = 0.23V (TYP.) @I_F = 5mA$ 

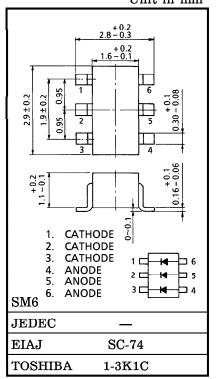
## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Maximum (Peak) Reverse Voltage	$v_{RM}$	15	V	
Reverse Voltage	$V_{\mathbf{R}}$	10	V	
Maximum (Peak) Forward Current	$I_{\mathbf{FM}}$	200*	mA	
Average Forward Current	IO	100*	mA	
Surge Current (10ms)	$I_{FSM}$	1*	Α	
Power Dissipation	P	300	mW	
Junction Temperature	$T_j$	125	°C	
Storage Temperature Range	$T_{ m stg}$	-55~125	°C	
Operating Temperature Range	$T_{ m opr}$	-40~100	°C	

\* : This is the Maximum Ratings of single diode (Q1 or Q2 or Q3).

In the case of using 2 or 3 diodes, the Maximum Ratings per diode is 75% of the single diode one.

## Unit in mm



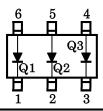
Weight: 0.015g

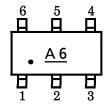
# ELECTRICAL CHARACTERISTICS (Q1 Q2 Q3 COMMON, Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V <sub>F</sub> (1)	I <sub>F</sub> =1mA	_	0.18		v
	$V_{\mathbf{F}}(2)$	I <sub>F</sub> =5mA	_	0.23	0.30	
	V <sub>F</sub> (3)	$I_{ m F}\!=\!100{ m mA}$	_	0.35	0.50	
Reverse Current	$I_{\mathbf{R}}$	$V_R = 10V$	_	_	20	$\mu$ A
Total Capacitance	$\mathrm{C}_{\mathbf{T}}$	$V_R=0$ , $f=1MHz$	_	20	40	рF

## PIN ASSIGNMENT (TOP VIEW)

#### **MARKING**

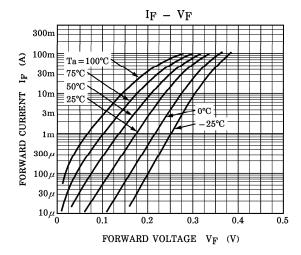


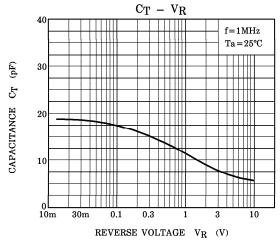


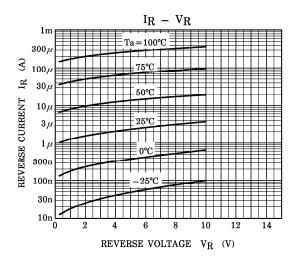
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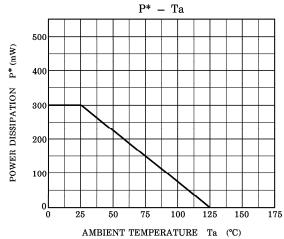
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\* : Total Rating