

To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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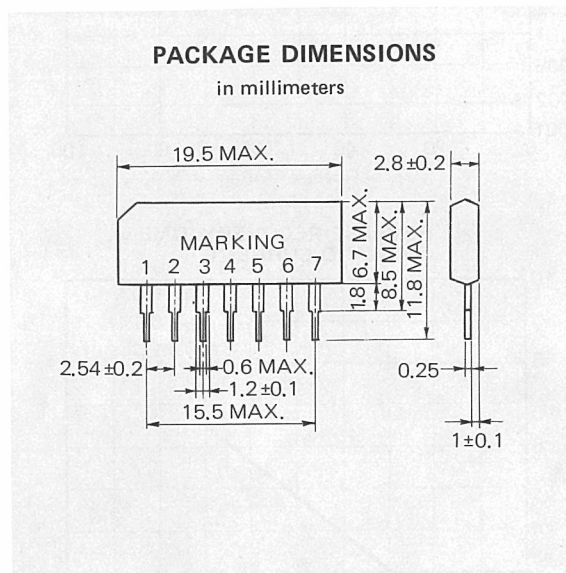
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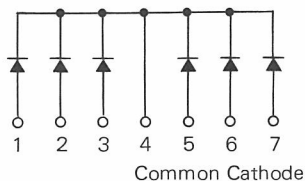
HIGH SPEED SWITCHING SILICON EPITAXIAL DIODE ARRAY

DESCRIPTION

The μPA54H is a common cathode monolithic array of six high speed switching diodes.



PIN CONNECTION



FEATURES

- High Speed Switching Time → t_{rr} 1.3 ns TYP.
- Small Terminal Capacitance → C_t 2.0 pF TYP.
- Small Size enables High Density Mounting
- Good Electrical Thermal Balance of Six Diodes due to 1 Chip Structure
- Package is 7 pin PLASTIC SIP.

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Currents ($T_a = 25^\circ\text{C}$)

Peak Reverse Voltage	V_{RM}	75	V
Reverse Voltage	V_R	50	V
Peak Forward Surge Current (1 μs)	I_F (surge)	1.0*	A
Peak Forward Current	I_{FM}	200*	mA
Average Rectified Current	I_o	100*	mA

Maximum Power Dissipation ($T_a = 25^\circ\text{C}$)

Power Dissipation	P	300**	mW
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Maximum Temperatures

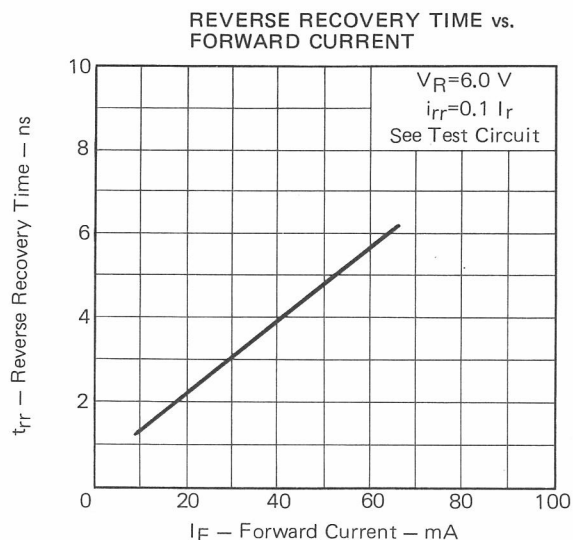
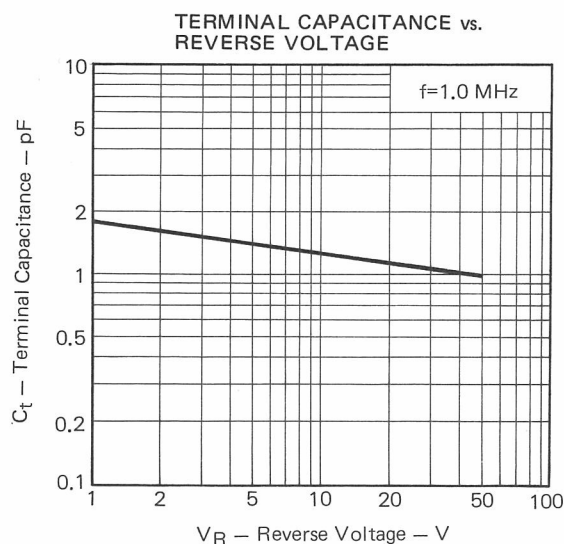
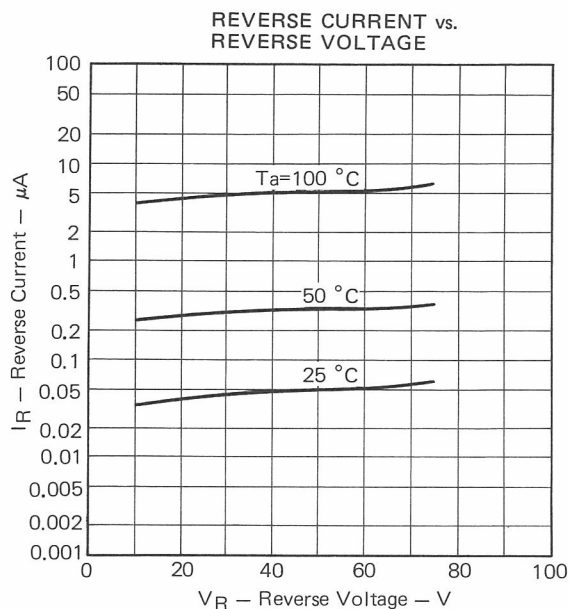
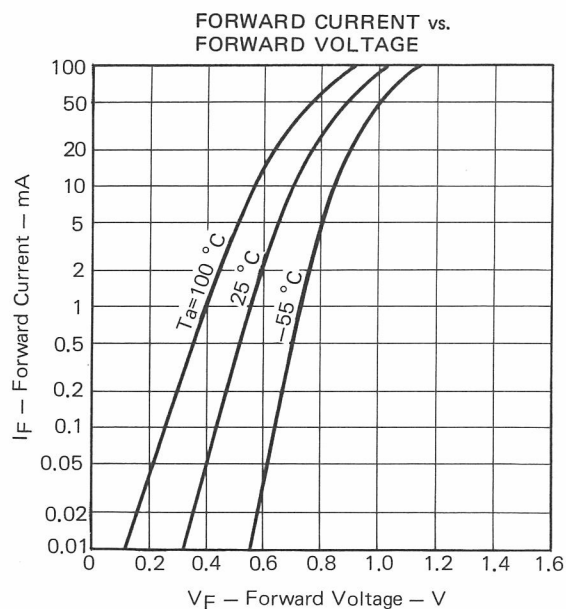
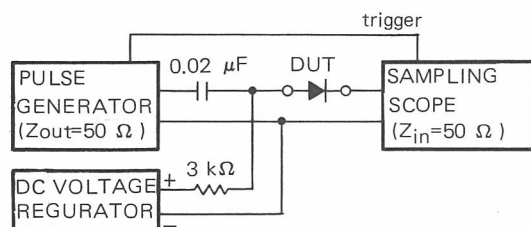
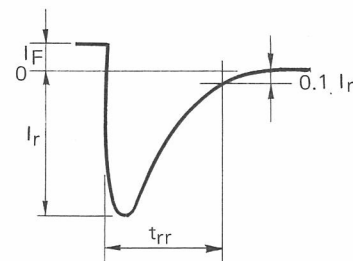
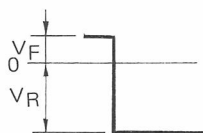
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

*1 Unit **Package

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Forward Voltage	V_F		0.8	1.0	V	$I_F = 30\text{ mA}$
Reverse Current	I_R		0.01	0.1	μA	$V_R = 30\text{ V}$
Terminal Capacitance *	C_t		2.0	4.0	pF	$V_R = 0, f = 1.0\text{ MHz}$
Reverse Recovery Time	t_{rr}		1.3	3.0	ns	See t_{rr} Reverse Recovery Time Test Circuit

* 1 Unit

Phase-out/DiscontinuedTYPICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$) t_{rr} REVERSE RECOVERY TIME TEST CIRCUITTest Conditions: $I_F=10\text{ mA}$, $V_R=6\text{ V}$, $R_L=100\ \Omega$, $i_{rr}=0.1 I_r$ 

Please note our new name,
NEC Corporation, starting April 1, 1983.

Nippon Electric Co., Ltd.

NEC Building, 33-1, Shiba Gochome, Minato-ku, Tokyo 108, Japan
Tel.: Tokyo 454-1111
Telex Address: NECTOK J22686
Cable Address: MICROPHONE TOKYO

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