

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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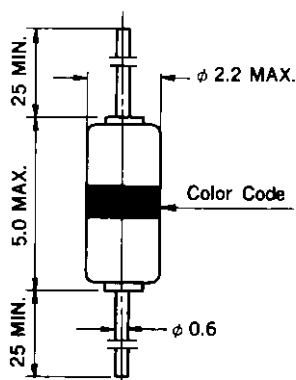
SILICON BIDIRECTIONAL TRIGGER DIODE



FEATURES

- Suitable for TRIAC trigger
- DO-35 package

PACKAGE DIMENSIONS (Unit : mm)



MAXIMUM RATINGS

ITEM	SYMBOL	RATING	UNIT	CONDITION
Peak Current	I_p	± 2	A	Pulse Width 10 μ s Repetition 120 Hz
Storage Temperature	T_{stg}	-40 to +125	$^{\circ}$ C	
Junction Temperature	T_j	+125	$^{\circ}$ C	

ELECTRICAL CHARACTERISTICS ($T_a = 25 \pm 2^{\circ}$ C)

ITEM	SYMBOL	SPECIFICATION			UNIT	NOTE
		MIN.	TYP.	MAX.		
Break Over Voltage	$V_{BO1}(V_{BO2})$	26	—	40	V	See Fig. 1
Break Over Voltage Symmetry	$ V_{BO1} - V_{BO2} $	—	—	3	V	See Fig. 1
Break Over Current	$I_{BO1}(I_{BO2})$	—	—	50	μ A	See Fig. 1
V_{BO} Temperature Coefficiency		—	—	—	%/ $^{\circ}$ C	See Fig. 3
Peak Output Voltage	V_p	5	—	—	V	See Fig. 2, 4, 5

SUBDIVIDED V_{BO}

Suffix (Color Code)	$V_{BO}(V)$	
	MIN.	MAX.
L (Red)	26	32
M (Blue)	29	37
N (Yellow)	34	40

Fig. 1 FUNDAMENTAL CHARACTERISTIC

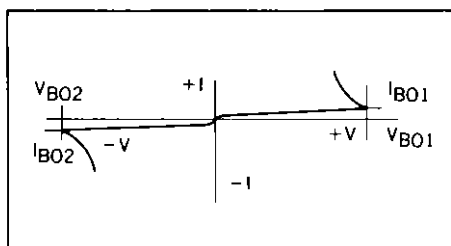
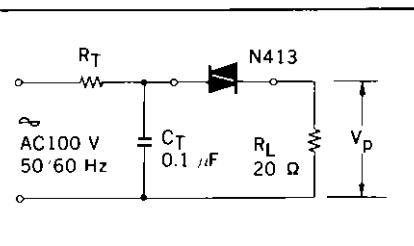


Fig. 2 FUNDAMENTAL CIRCUIT



Note: Request L, M or N, when the special selected V_{BO} is needed. Ex., N413M.

TYPICAL CHARACTERISTICS

Fig. 3 VARIATION OF V_{BO} WITH T_a

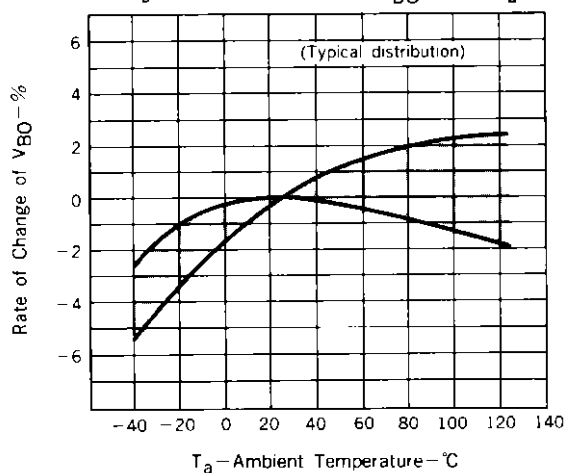


Fig. 4 $V_p - T_a$ CHARACTERISTIC

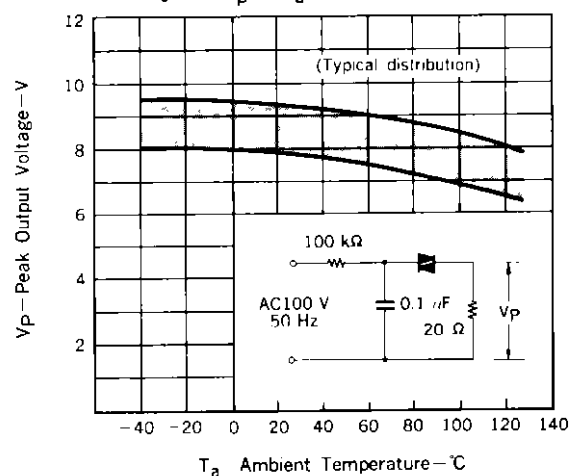


Fig. 5 $V_p - C_T$ CHARACTERISTIC ($T_a = 25^\circ\text{C}$)

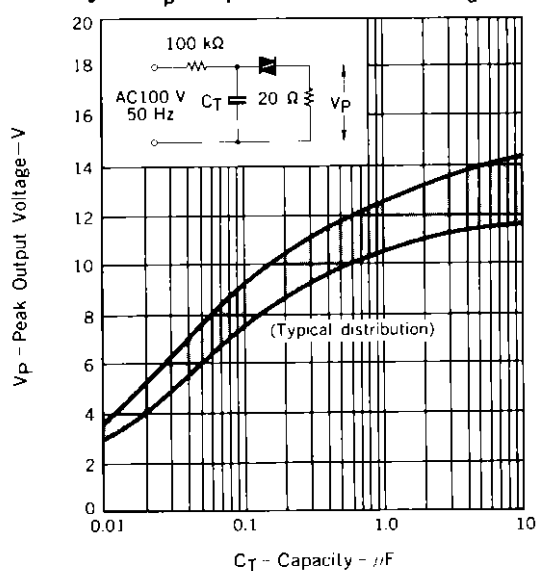


Fig. 6 $V_p - R_L$ CHARACTERISTIC ($T_a = 25^\circ\text{C}$)

