

To our customers,

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## Old Company Name in Catalogs and Other Documents

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

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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

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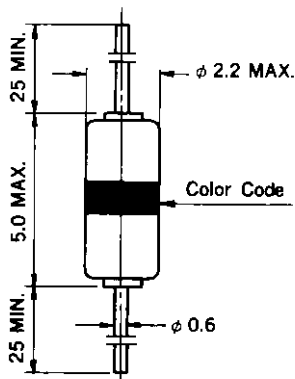
## SILICON BIDIRECTIONAL TRIGGER DIODE



### FEATURES

- Suitable for TRIAC trigger
- DO-35 package

### PACKAGE DIMENSIONS (Unit : mm)



### MAXIMUM RATINGS

ITEM	SYMBOL	RATING	UNIT	CONDITION
Peak Current	$I_p$	$\pm 2$	A	Pulse Width 10 $\mu$ 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	$\mu$ 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

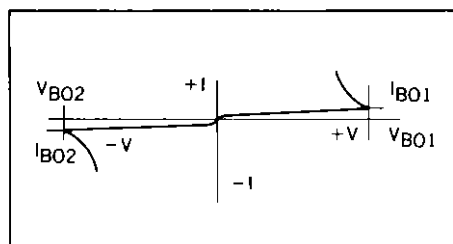
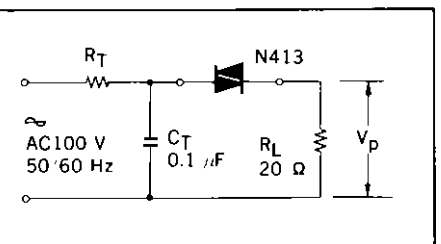


Fig. 2 FUNDAMENTAL CIRCUIT



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  $T_a$

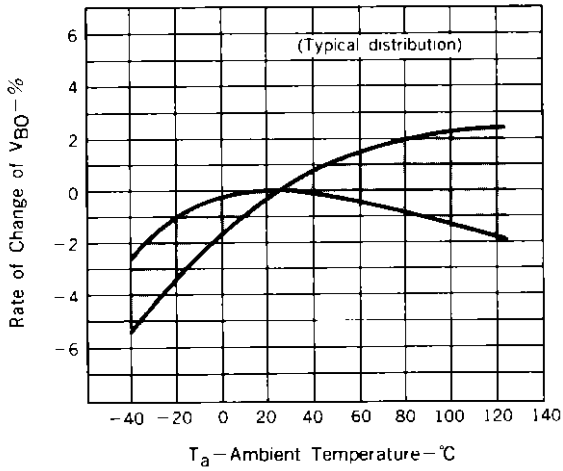


Fig. 4  $V_p - T_a$  CHARACTERISTIC

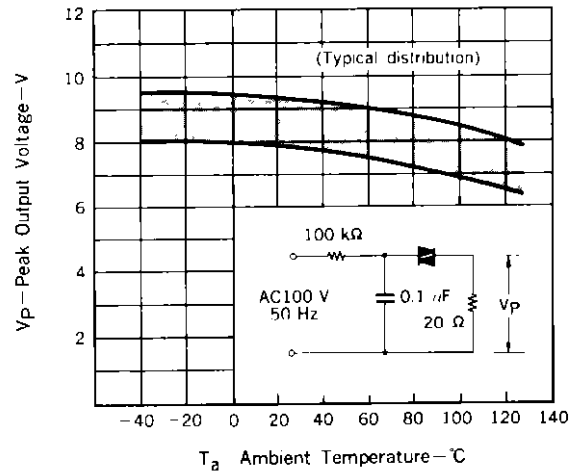


Fig. 5  $V_p - C_T$  CHARACTERISTIC ( $T_a = 25^\circ\text{C}$ )

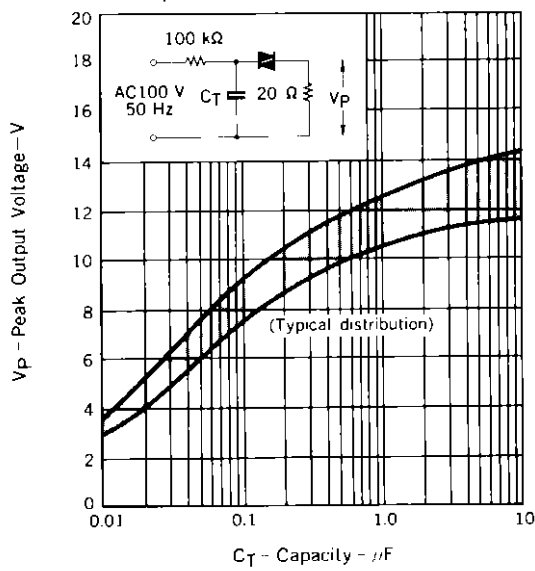


Fig. 6  $V_p - R_L$  CHARACTERISTIC ( $T_a = 25^\circ\text{C}$ )

