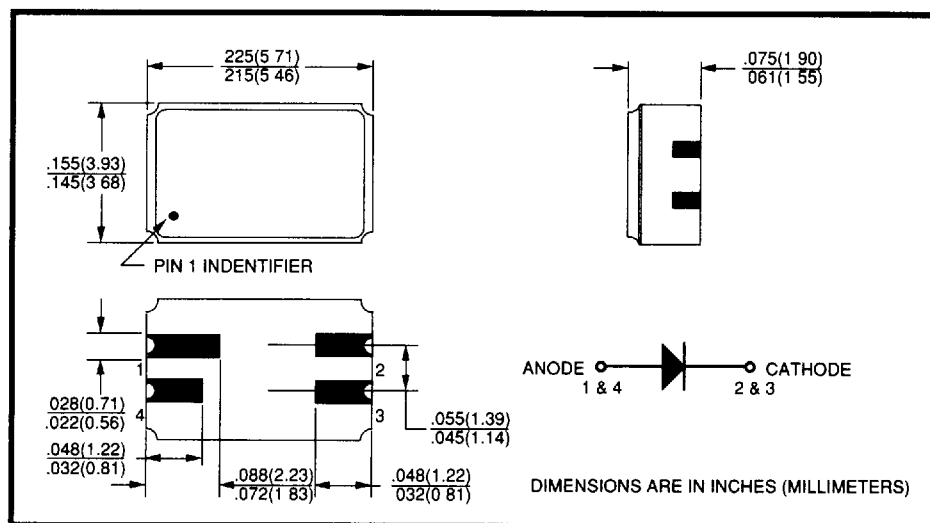
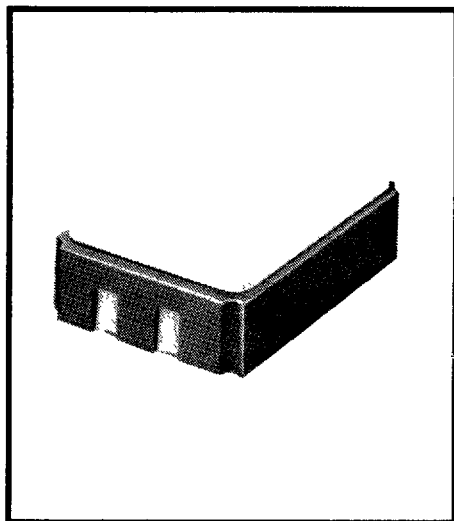


Surface Mount Extra Fast Recovery Rectifiers T.03-11

Types HCR3400/HCR31000 Series



Features

- Surface mountable on ceramic or printed circuit board
- Hermetically sealed package
- 400 to 1000 volt
- t_r as low as 30 nsec
- Screened per MIL-S-19500 TX or TXV equivalent levels on request

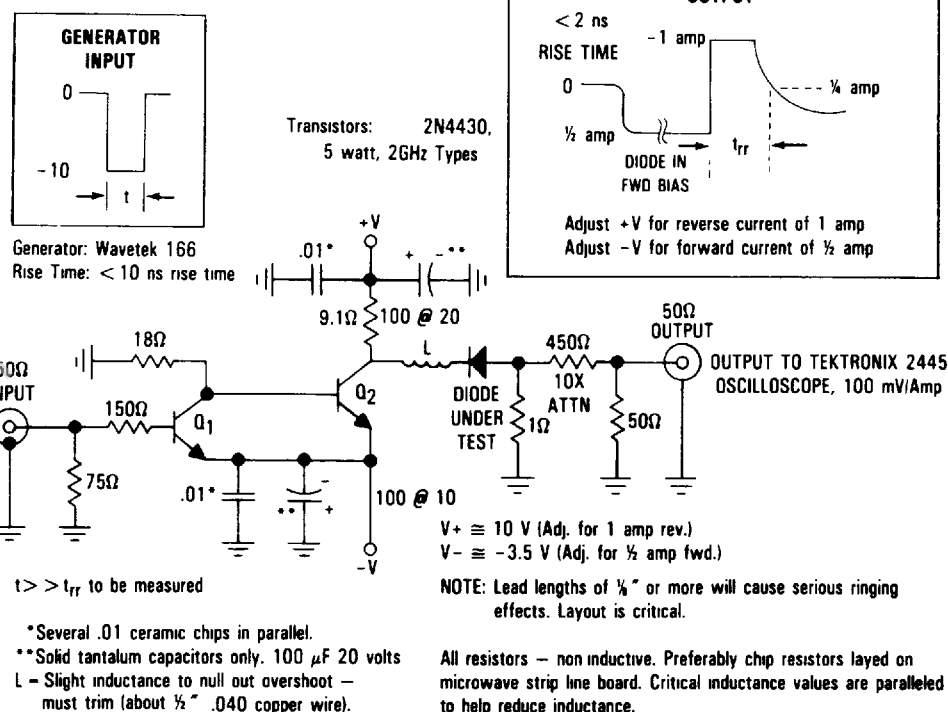
Description

Optek's extra fast recovery switching rectifiers exhibit the fastest t_r available. This speed is coupled with low leakage and low V_F . These devices are hermetically sealed in a miniature custom designed surface mount leadless chip carrier. This construction provides for easy handling and mounting, plus rugged enough for any medical, military or space program.

Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Operating Temperature	-65°C to +150°C
Storage Temperature	-65°C to +175°C
Soldering Temperature (vapor phase reflow for 30 sec.)	215°C
Soldering Temperature (heated collet for 5 sec.)	260°C
DC Power Dissipation, P_D	2.0 W xxx

t_{rr} Circuit



Types HCR3400/HCR31000 Series

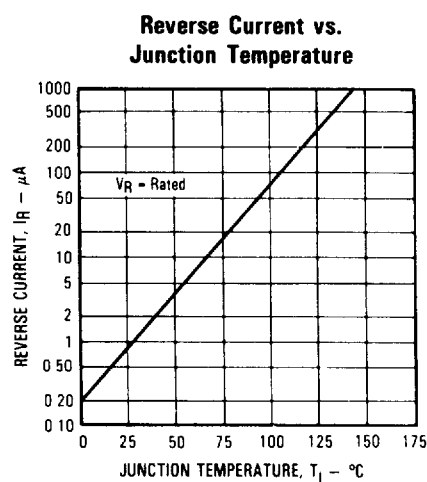
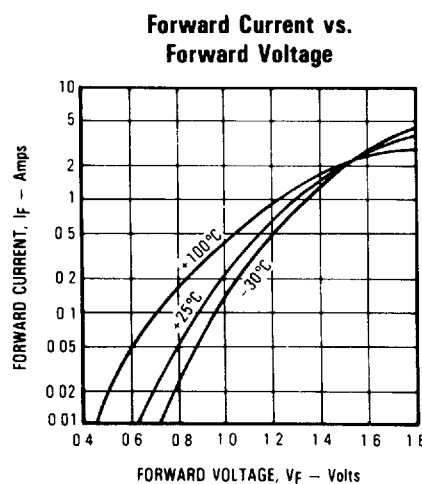
Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part No.	Spec V_R (90% E_g)	$t_{rr}^{1/2-1-1/4 A}$		Max $I_R @ V_R$		Max $C_0^{(1)}$	$V_F @ 1.0 A$	
		Nom	Max	25°C	100°C		Nom	Max
	Volts	ns	ns	μA	μA	pF	Volts	Volts
HCR3400	400	20	30	10.0	160	50	1.24	1.50
HCR3500	500	20	30	10.0	160	50	1.28	1.80
HCR3600	600	35	50	10.0	160	40	1.32	1.80
HCR3700	700	35	50	10.0	160	40	1.36	1.80
HCR3800	800	50	75	10.0	160	40	1.40	1.80
HCR3900	900	70	100	10.0	160	35	1.42	1.80
HCR31000	1000	70	100	10.0	160	35	1.44	1.80

NOTE

1. C_0 measured @ $V_R = 0$

Typical Performance Curves



Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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