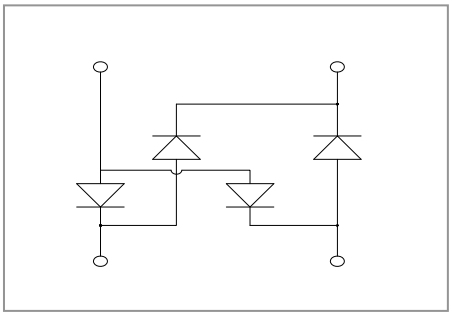
Fast Recovery Bridge Rectifiers



Features

- UL recognition, file #E313149
- Ideal for automated placement
- Glass passivated chip junction
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

General purpose use in high frequency AC/DC bridge full wave rectification for SMPS, lighting ballast, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

Mechanical Data

- **Package**: ABS
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	RABS1510
Device marking code			RABS1510
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	1000
Maximum RMS Voltage	V_{RMS}	V	700
Maximum DC blocking Voltage	V_{DC}	V	1000

Average rectified output current
@60Hz sine wave, R-load, Tc=120 T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RABS1510
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A	500
Maximum instantaneous forward voltage drop per diode	VF	V	I_{FM}=0.7A	1.3
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	T_j =25	5
			T_j =125	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	40

■Thermal Characteristics T_a=25 Unless otherwise specified

PARAMETER		SYMBOL	UNIT	RABS1510
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	/W	62.5
	Between junction and lead	$R_{\theta J-L}$		25.0
	Between junction and case	$R_{\theta J-C}$		8.0

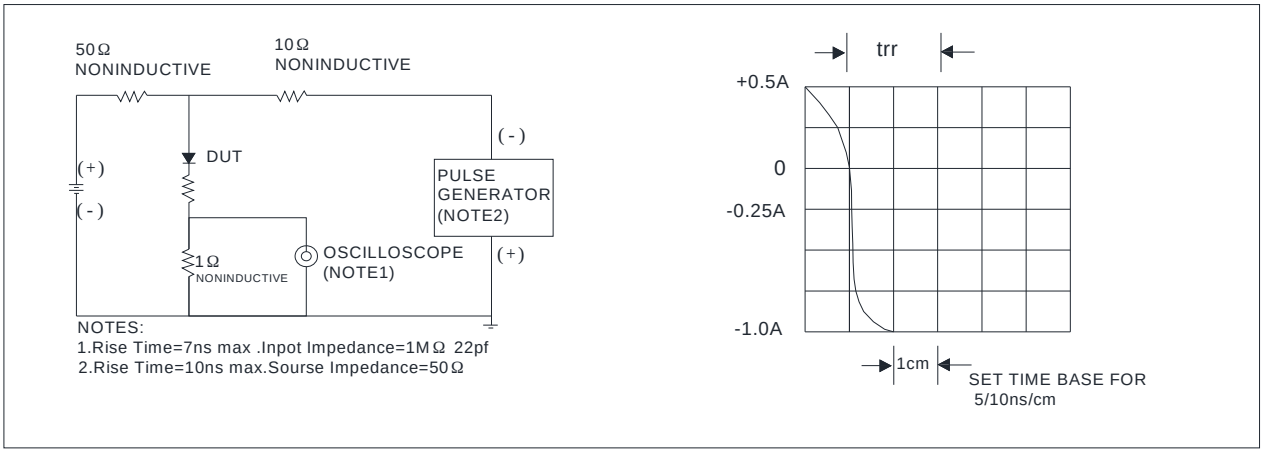
Note: Device mounted on P.C.B with 35mm*25mm*1.7mm

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RABS1510	F1	Approximate 0.095	4000	/	64000	13” reel
RABS1510	F5	Approximate 0.095	5000	/	80000	13” reel

■ Characteristics (Typical)

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions

ABS		
Dim	Min	Max
A	4.30	4.50
B	6.00	6.40
C	3.90	4.10
D	4.90	5.10
E	1.25	1.45
F	1.60 Max	
G	0.60	0.70
H	0.15	0.25
I	0.30	0.80
J	0.02	0.15

■ Suggested pad layout

Dim	Min
P1	5.72
P2	4.00
Q1	1.00
Q2	0.90

b