

High-Voltage Rectifier Diodes

t_{rr} ①: $I_F/I_R (=I_F)$ 90% Recovery Point
(ex. $I_F/I_R = 100\text{mA}/100\text{mA}$ 90% Recovery Point)

Division	V_{RM} (kV)	Part Number	I_F (AV) (mA)	I_{FSM} (A)	T_c (°C)	T_{stg} (°C)	V_F (V) max	I_F (mA)	I_R (μA)	I_R (H) (μA)	T_a (°C)	t_{rr} ① (μs)		Mass (g)	Fig. No.	
				50Hz Half-cycle Sinewave Single Shot					$V_R = V_{RM}$ max	$V_R = V_{RM}$ max		$T_a = 100^\circ\text{C}$	I_F/I_{FP} (mA)			
For General Purpose	2	SHV-02	2.0	0.3	100	-40 to +120	16	10	1	3	100	0.18	—	10/10	0.13	1
	3	SHV-03S	2.0	0.3	100	-40 to +120	16	10	1	3	100	0.18	—	10/10	0.13	
	3	SHV-03	2.0	0.5	100	-40 to +120	16	10	1	3	100	0.18	—	10/10	0.16	2
For General FBT	10	SHV-10	2.0*	0.5	100	-40 to +120	40	10	1	3	100	0.18	—	10/10	0.33	5
	12	SHV-12	2.0*	0.5	100	-40 to +120	45	10	1	3	100	0.18	—	10/10	0.33	
	14	SHV-14	2.0*	0.5	100	-40 to +120	55	10	1	3	100	0.18	—	10/10	0.33	
	16	SHV-16	2.0*	0.5	100	-40 to +120	60	10	1	3	100	0.18	—	10/10	0.33	
	20	SHV-20	2.0*	0.5	100	-40 to +120	75	10	1	3	100	0.18	—	10/10	0.33	
	24	SHV-24	2.0*	0.5	100	-40 to +120	75	10	1	3	100	0.18	—	10/10	0.33	
For High Frequency Multi-layer FBT	6	SHV-06EN	2.0*	0.5	100	-40 to +120	24	10	1	3	100	0.15	0.20	10/10	0.17	3
	8	SHV-08EN	2.0*	0.5	100	-40 to +120	30	10	1	3	100	0.15	0.20	10/10	0.17	
	10	SHV-10EN	2.0*	0.5	100	-40 to +120	38	10	1	3	100	0.15	0.20	10/10	0.20	
	12	SHV-12EN	2.0*	0.5	100	-40 to +120	45	10	1	3	100	0.15	0.20	10/10	0.20	
For Ultra-High Frequency Multi-layer FBT	8	SHV-08DN	2.0*	0.5	100	-40 to +120	30	10	1	3	100	0.15	0.20	10/10	0.17	3
	10	SHV-10DN	2.0*	0.5	100	-40 to +120	38	10	1	3	100	0.15	0.20	10/10	0.20	
	12	SHV-12DN	2.0*	0.5	100	-40 to +120	45	10	1	3	100	0.15	0.20	10/10	0.20	
For General Type Microwave Oven	9	HVR-1X-40B	350	20	60 (T_a)	-40 to +130	9	350	10	$V_Z = 9.5$ to 15kV		—	—	—	2.5	7
For Inverter Type Microwave Oven	8	UX-F5B	350	15	60 (T_a)	-40 to +130	14	350	10	$V_Z = 8.5\text{kV min}$		0.15	—	100/100	2.5	
For Automotive Ignition Coil	2.5	SHV-05JS	30	3	—	-40 to +150	5	10	10	$V_Z = 2.6$ to 5.0 ($@I_Z = 100\mu\text{A}$)		—	—	0.16	2	
	3.0	SHV-06JN	30	3	—	-40 to +150	6	10	10	$V_Z = 3.2$ to 6.0 ($@I_Z = 100\mu\text{A}$)		—	—	0.17		
	4.0	SHV-08J	30	3	—	-40 to +150	8	10	10	$V_Z = 4.5$ to 8.0 ($@I_Z = 100\mu\text{A}$)		—	—	0.20		
	15.0	SHV-30J	30	3	—	-40 to +150	30	10	10	$V_Z = 16.0$ to 30.0 ($@I_Z = 100\mu\text{A}$)		—	—	0.33		

* FBT High Voltage Rectifier Capacitive Load, $T_c \leq 100^\circ\text{C}$

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Part Number	External dimensions	Marking (Cathode Mark)	
		Pattern	Color
SHV-02	1		White
SHV-03S			Red
SHV-03	2		White
SHV-05J			Red
SHV-06JN	3		White
SHV-06EN			White
SHV-08EN			White
SHV-08DN			Red
SHV-10EN	4		White
SHV-10DN			Red
SHV-12EN			White
SHV-12DN			Red
SHV-10	5		White
SHV-12			
SHV-14			
SHV-16			
SHV-20			
SHV-24			
SHV-30J			
HVR-1X-40B	7		White
UX-F5B			
SHV-08J	8		White

- The SHV series of diodes have been miniaturized by resin on the assumption for remolding. Measures against creeping discharge and humidity stress must be taken when using these diodes.
- The taping specifications of the SHV series differ from ordinary diodes. (P.10)