

Schottky Diodes

For circuit protection

July 2009

**Small & high radiation package achieves smaller and lower profile set.
Low VF/Low IR characteristics achieve more power saving and higher performance!!**

Schottky Diodes for Protecting LED Drivers

Characteristics of schottky diodes for circuit protection

On time: Loss due to voltage drop.

→ Low VF is required

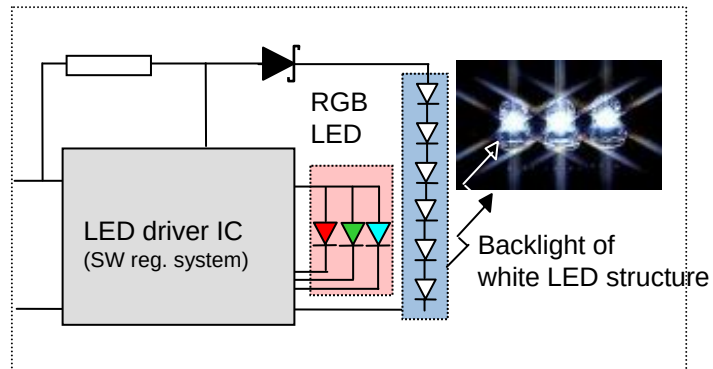
OFF time: Loss due to applying reverse voltage.

→ Low leakage current is required

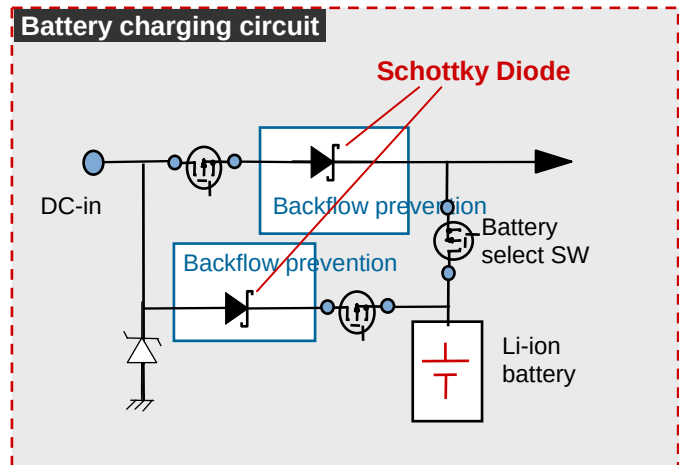
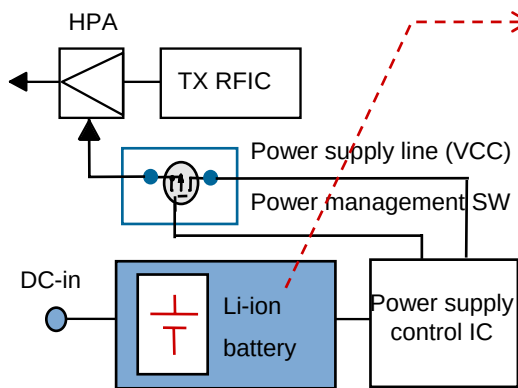
Qty. of LED drive and its current rating

1~4 pcs: $I_o=500\text{mA}$ is required

~8 pcs: $I_o=1\text{A}$ is required



Schottky Diodes for Circuit Protection of Mobile Equipment's Batteries



Recommended Product Lineup

Package	Part No.	Reverse voltage	Rectifier current	Forward voltage		Leakage current		Remarks
		V_{RRM} (V)	I_o (A)	V_F (V)	I_F (A)	I_R (mA)	V_R (V)	
UFP	HRC0103C	30	0.1	0.60	0.1	0.1	5	Low IR
	HRC0203B	30	0.2	0.52	0.2	10.0	30	Low IR
	RKR0303AKJ	30	0.3	0.42	0.3	200	30	Low VF
	RKR0303BKJ	30	0.3	0.50	0.3	50	30	Low IR
URP	HRU0203A	30	0.2	0.50	0.2	50	30	Low IR
	HRU0302A	20	0.3	0.40	0.3	100	20	Low VF
TURP	HRV103A	30	1.0	0.36	0.7	1000	30	Low VF
	HRV103B	30	1.0	0.45	0.7	100	30	Low IR
	RKR104B	40	1.0	0.55	0.7	50	40	Low IR
	RKR0703BKH	30	0.7	0.55	0.7	50	30	Low IR
	RKR0505AKH	50	0.5	0.46	0.5	400	30	Low VF
	RKR0505BKH	50	0.5	0.60	0.5	40	30	Low IR
	RKR0503AKH	30	0.5	0.37	0.5	500	30	Low VF
	RKR0503BKH	30	0.5	0.44	0.5	100	30	Low IR
MPAK	HRW0302A	20	0.3	0.40	0.3	100	20	Low VF
	HRW0502A	20	0.5	0.40	0.5	200	20	Low VF

New
New

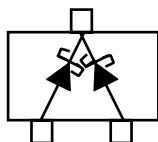
New
New

Product Lineup of Schottky Diodes for Circuit Protection

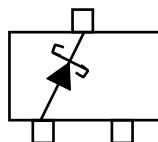
► 3-terminal type rectification use

Package	Part No.	Maximum Ratings		Characteristics				Pin Connection
		VRRM (V)	Io (A)	VF (V) (max) IF (A)		IR (mA) (max) VR (V)		
MPAK	HRW0202A	20	0.2	0.40	0.1	0.05	20	CC
	HRW0202B	20	0.2	0.42	0.1	0.01	20	CC
	HRW0203A	30	0.2	0.50	0.2	0.05	30	SI(1)
	HRW0203B	30	0.2	0.50	0.2	0.05	30	SI(2)
	HRW0302A	20	0.3	0.40	0.3	0.10	20	SI(1)
	HRW0502A	20	0.5	0.40	0.5	0.20	20	SI(1)
	HRW0503A	30	0.5	0.55	0.5	0.05	30	SI(1)
	HRW0702A	20	0.7*	0.43	0.7	0.20	20	SI(1)
	HRW0703A	30	0.7*	0.50	0.7	0.10	30	SI(1)
CMPAK	HRB0103A	30	0.1	0.44	0.1	0.05	30	SI(1)
	HRB0103B	30	0.1	0.44	0.1	0.05	30	SE
	HRB0502A	20	0.5*	0.40	0.5	0.20	20	SI(1)

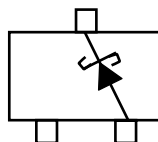
*: IF rate

Pin
Connection

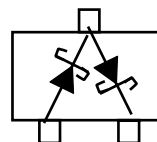
CC type



SI(1) type



SI(2) type



SE type

► 2-terminal type rectification use

Package	Part No.	Maximum Ratings		Characteristics			
		VRRM (V)	Io (A)	VF (V)		IR (mA)	
				(max)	IF (A)	(max)	VR (V)
TURP	HRV103A	30	1	0.36	0.7	1.00	30
	HRV103B	30	1	0.45	0.7	0.10	30
	RKR104B	40	1	0.55	0.7	0.05	40
	RKR0505AKH	50	0.5	0.46	0.5	0.40	20
	RKR0505BKH	50	0.5	0.60	0.5	0.04	30
	RKR0703BKH	30	0.7	0.55	0.7	0.05	30
URP	HRU0103A	30	0.1	0.44	0.1	0.05	30
	HRU0203A	30	0.2	0.50	0.2	0.05	30
	HRU0302A	20	0.3	0.40	0.3	0.10	20
UFP	HRC0103A	30	0.1	0.44	0.1	0.05	30
	HRC0103C	30	0.1	0.60	0.1	0.0001	5
	HRC0203B	30	0.2	0.52	0.2	0.01	30
	HRC0203C	30	0.2	0.45	0.2	0.03	10
SFP	HRD0103C	30	0.1	0.60	0.1	0.0001	5
	HRD0203C	30	0.2	0.45	0.2	0.03	10
EFP	HRL0103C	30	0.1	0.60	0.1	0.0001	5
	RKD700KL	30	0.05	0.43	0.01	0.001	30
MP6	RKD702KP	30	0.05*	0.35	0.001	0.00025	30

*: IF rate