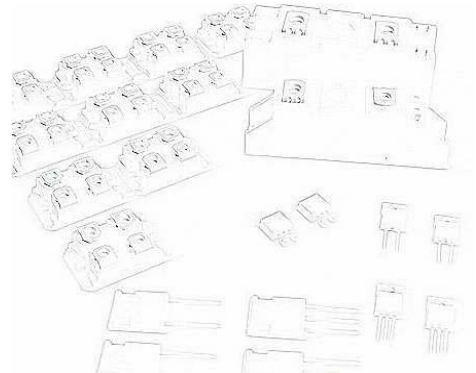




**PIONEER OF POWER SOLUTION**

**SirectSemi<sup>®</sup>**



# **SCHOTTKY BARRIER DIODE POWER PACKAGE**



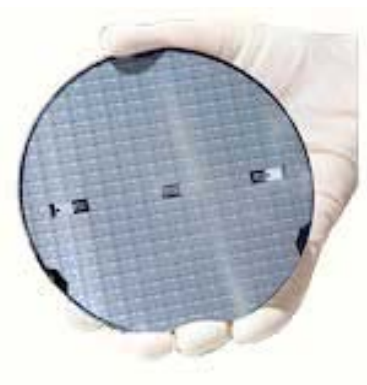
**LOW FORWARD VOLTAGE DROP**



**ESD PROTECTION**



**HIGH DENSITY PACKAGE**



**Green  
Product**






**SIRECT**

# THE SCHOTTKY BARRIER FAMILY

Substrate	Barrier & Breakdown Voltage (V <sub>B</sub> )	Electronic Characteristics (V <sub>F</sub> @ 125°C & I <sub>R</sub> @ 25°C)
Silicon(Si) Epitaxial	<b>Pt (Platinum) Barrier, 45-200V</b>	Highest T <sub>j</sub> (150-175°C) and lowest I <sub>R</sub> (less than 10μA)
	<b>Mo (Molybdenum) Barrier, 40-60V</b>	Lower V <sub>F</sub> (0.35-0.65V) with general I <sub>R</sub> (0.5-1.0mA) & T <sub>j</sub> (150°C)
	<b>Cr (Chromium) Barrier, 15V</b>	Lowest V <sub>F</sub> (0.27V) with extremely highest I <sub>R</sub> (less than 8.0mA)
	<b>Alloy (Pt+Nickle) Barrier, 100-150V</b>	Lower V <sub>F</sub> (0.54-0.69V) compare with Pt Barrier
	<b>Alloy (Mo+Nickle) Barrier, 30V</b>	Lower V <sub>F</sub> (0.32-0.35V) compare with Mo Barrier

## PRODUCT INFORMATION

Part Number	Maximum Average Rectified Current	Peak Repetitive Reverse Voltage	Forward Voltage Drop @25°C		Maximum Peak Forward Surge Current	Maximum Reverse Current @ Reted VR (25°C)		Package	Barrier
	I <sub>O</sub>	V <sub>RRM</sub>	V <sub>F</sub> @ I <sub>F</sub>		I <sub>FSM</sub>	I <sub>R</sub> @ V <sub>R</sub>			
	A	V	V	A	A	mA	V		
<b>1A - 2A / DO-41</b>									
SB140	1	40	0.55	1	30	0.5	40	DO-41	Mo
SB160	1	60	0.65	1	30	0.3	60	DO-41	Mo
SB1100	1	100	0.82	1	30	0.01	100	DO-41	Pt
SB1150	1	150	0.88	1	30	0.01	150	DO-41	Pt
SB1200	1	200	0.90	1	30	0.01	200	DO-41	Pt
SB240S	2	40	0.55	2	50	0.5	40	DO-41	Mo
SB260S	2	60	0.65	2	50	0.3	60	DO-41	Mo
<b>2A / DO-15</b>									
SB240	2	40	0.55	2	50	0.5	40	DO-15	Mo
SB260	2	60	0.65	2	50	0.3	60	DO-15	Mo
SB2100	2	100	0.82	2	50	0.01	100	DO-15	Pt
<b>3A - 5A / DO-27(DO-201AD)</b>									
SB340(E)	3	40	0.55	3	80	0.5	40	DO-27	Mo
SB360(E)	3	60	0.65	3	80	0.3	60	DO-27	Mo
SB3100	3	100	0.82	3	80	0.01	100	DO-27	Pt
SB3150	3	150	0.88	3	80	0.01	150	DO-27	Pt
SB3200	3	200	0.90	3	80	0.01	200	DO-27	Pt
SB540(E)	5	40	0.55	5	100	0.5	40	DO-27	Mo
<b>NEW</b> SB540L	5	40	0.47	5	230	0.5	40	DO-27	Mo
SB560(E)	5	60	0.65	5	100	0.3	60	DO-27	Mo
<b>NEW</b> SB560L	5	60	0.55	5	230	0.3	60	DO-27	Mo
SB5100	5	100	0.82	5	100	0.01	100	DO-27	Pt
<b>NEW</b> SB5100L	5	100	0.75	5	230	0.01	100	DO-27	Pt
SB5150	5	150	0.88	5	100	0.01	150	DO-27	Pt
SB5200	5	200	0.90	5	100	0.01	200	DO-27	Pt
<b>5A / TO-126FC</b>									
SB540FC	5	40	0.55	5	100	0.5	40	TO-126FC	Mo
SB560FC	5	60	0.65	5	100	0.3	60	TO-126FC	Mo
SB5100FC	5	100	0.82	5	100	0.01	100	TO-126FC	Pt
SB5150FC	5	150	0.88	5	100	0.01	150	TO-126FC	Pt
SB5200FC	5	200	0.90	5	100	0.01	200	TO-126FC	Pt





Part Number	Maximum Average Rectified Current	Peak Repetitive Reverse Voltage	Forward Voltage Drop (@125°C)		Maximum Peak Forward Surge Current	Maximum Reverse Current @ Reted VR (25°C)		Package	Barrier
	$I_O$	$V_{RRM}$	$V_F @ I_F$		$I_{FSM}$	$I_R @ V_R$			
	A	V	V	A	A	mA	V		
<b>10A / TO-126FC</b>									
SB1060FC	10	60	0.50	10	120	1.0	60	TO-126FC	Mo
SB10100FC	10	100	0.66	10	120	0.01	100	TO-126FC	Pt
SB10150FC	10	150	0.69	10	120	0.01	150	TO-126FC	Pt
SB10200FC	10	200	0.72	10	120	0.01	200	TO-126FC	Pt
<b>10A - 30A / TO-220AC</b>									
MBR10100C	10	100	0.66	10	120	0.01	100	TO-220AC	Pt
MBR10150C	10	150	0.69	10	120	0.01	150	TO-220AC	Pt
MBR10100FC	10	100	0.66	10	120	0.01	100	ITO-220AC	Pt
MBR10150FC	10	150	0.69	10	120	0.01	150	ITO-220AC	Pt
SBL2VFC	20	60	0.50	20	150	1.0	60	ITO-220AC	Mo
MBR2XFC	20	100	0.69	20	150	0.01	100	ITO-220AC	Pt
MBR2ZC	20	200	0.72	20	150	0.01	200	TO-220AC	Pt
MBR3XFC	30	100	0.69	30	350	0.01	100	ITO-220AC	Pt
<b>10A - 30A / TO-220AB</b>									
SBL10SL60CT	10	60	0.41	5	120	1.0	60	TO-220AB	Mo
SBL1060CT	10	60	0.50	5	120	1.0	60	TO-220AB	Mo
MBR10100CT	10	100	0.66	5	120	0.01	100	TO-220AB	Pt
MBR10E100CT	10	100	0.70	5	100	0.01	100	TO-220AB	Pt
MBR10B100CTH	10	100	0.66	5	120	0.01	100	TO-220AB	Alloy
 MBR10L100CT	10	100	0.56	5	120	0.01	100	TO-220AB	Alloy
 MBR10U100CTH	10	100	0.54	5	120	0.05	100	TO-220AB	Alloy
MBR10150CT	10	150	0.69	5	120	0.01	150	TO-220AB	Pt
MBR10B150CTH	10	150	0.69	5	120	0.01	150	TO-220AB	Alloy
 MBR10L150CT	10	150	0.65	5	120	0.01	150	TO-220AB	Alloy
MBR10200CT	10	200	0.72	5	120	0.01	200	TO-220AB	Pt
MBR10L200CT	10	200	0.63	5	120	0.01	200	TO-220AB	Pt
SBL2045CT	20	45	0.47	10	150	1.0	45	TO-220AB	Mo
MBR2045CT	20	45	0.58	10	150	0.01	45	TO-220AB	Pt
MBRH2060CT	20	60	0.62	10	150	0.01	60	TO-220AB	Pt
MBR20100CT	20	100	0.66	10	150	0.01	100	TO-220AB	Pt
MBR20E100CT	20	100	0.66	10	120	0.01	100	TO-220AB	Pt
MBR20B100CTH	20	100	0.66	10	150	0.01	100	TO-220AB	Alloy
MBR20HL100CT	20	100	0.61	10	150	0.01	100	TO-220AB	Pt
MBR20L100CT	20	100	0.59	10	150	0.01	100	TO-220AB	Pt
 MBR20U100CTH	20	100	0.54	10	150	0.05	100	TO-220AB	Alloy
 MBR20B120CTH	20	120	0.69	10	150	0.01	120	TO-220AB	Alloy
MBR20150CT	20	150	0.69	10	150	0.01	150	TO-220AB	Pt
MBR20B150CTH	20	150	0.69	10	150	0.01	150	TO-220AB	Alloy
MBR20L150CT	20	150	0.65	10	150	0.01	150	TO-220AB	Pt
MBR20200CT	20	200	0.72	10	150	0.01	200	TO-220AB	Pt
MBR20H200CT	20	200	0.75	10	150	0.01	200	TO-220AB	Pt
SBL3030CT	30	30	0.35	15	350	1.0	30	TO-220AB	Alloy
SBL30L30CT	30	30	0.32	15	350	1.0	30	TO-220AB	Alloy
SBL30L45CT	30	45	0.35	15	350	1.0	45	TO-220AB	Mo
SBL30L60CT	30	60	0.45	15	350	1.0	60	TO-220AB	Mo
SBL30LL60CT	30	60	0.40	15	350	1.0	60	TO-220AB	Mo
MBR3060CT	30	60	0.62	15	350	0.01	60	TO-220AB	Pt

Part Number	Maximum Average Rectified Current	Peak Repetitive Reverse Voltage	Forward Voltage Drop (@125°C)		Maximum Peak Forward Surge Current	Maximum Reverse Current @ Reted VR (25°C)		Package	Barrier
	$I_O$	$V_{RRM}$	$V_F @ I_F$		$I_{FSM}$	$I_R @ V_R$			
	A	V	V	A	A	mA	V		

### 30A - 60A / TO-220AB

MBR30100CT	30	100	0.66	15	350	0.01	100	TO-220AB	Pt
MBR30H100CT	30	100	0.67	15	350	0.01	100	TO-220AB	Pt
MBR30L100CT	30	100	0.63	15	350	0.01	100	TO-220AB	Pt
MBR30150CT	30	150	0.72	15	350	0.01	150	TO-220AB	Pt
MBR30200CT	30	200	0.75	15	350	0.01	200	TO-220AB	Pt
SBL40L15CT	40	15	0.27	20	350	8.0	15	TO-220AB	Cr
SBL4030CT	40	30	0.35	20	400	1.0	30	TO-220AB	Alloy
SBL4045CT	40	45	0.46	20	400	1.0	45	TO-220AB	Mo
SBL40L45CT	40	45	0.41	20	400	1.0	45	TO-220AB	Mo
SBL4060CT	40	60	0.50	20	400	1.0	60	TO-220AB	Mo
SBL40L60CT	40	60	0.45	20	400	1.0	60	TO-220AB	Mo
MBR4060CT	40	60	0.62	20	400	0.01	60	TO-220AB	Pt
MBR40100CT	40	100	0.69	20	400	0.01	100	TO-220AB	Pt
MBR40L100CT	40	100	0.66	20	400	0.01	100	TO-220AB	Pt
SBL6045CT	60	45	0.44	30	500	1.0	45	TO-220AB	Mo
SBL6060CT	60	60	0.55	30	500	1.0	60	TO-220AB	Mo
MBR60100CT	60	100	0.69	30	500	0.01	100	TO-220AB	Pt

### 10A - 40A / ITO-220AB

SBL10SL60FCT	10	60	0.41	5	120	1.0	60	ITO-220AB	Mo
SBL1060FCT	10	60	0.50	5	120	1.0	60	ITO-220AB	Mo
MBR10100FCT	10	100	0.66	5	120	0.01	100	ITO-220AB	Pt
 MBR10L100FCT	10	100	0.56	5	120	0.01	100	ITO-220AB	Alloy
 MBR10U100FCTH	10	100	0.54	5	120	0.05	100	ITO-220AB	Alloy
MBR10E100FCT	10	100	0.70	5	100	0.01	100	ITO-220AB	Pt
MBR10B100FCTH	10	100	0.66	5	120	0.01	100	ITO-220AB	Alloy
MBR10150FCT	10	150	0.69	5	120	0.01	150	ITO-220AB	Pt
MBR10B150FCTH	10	150	0.69	5	120	0.01	150	ITO-220AB	Alloy
 MBR10L150FCT	10	150	0.65	5	120	0.01	150	ITO-220AB	Alloy
MBR10200FCT	10	200	0.72	5	120	0.01	200	ITO-220AB	Pt
MBR10L200FCT	10	200	0.63	5	120	0.01	200	ITO-220AB	Pt
SBL20B45FCTH	20	45	0.47	10	150	1.0	45	ITO-220AB	Mo
SBL20B60FCTH	20	60	0.50	10	150	1.0	60	ITO-220AB	Mo
SBL20L60FCT	20	60	0.41	10	150	1.0	60	ITO-220AB	Mo
MBR20100FCT	20	100	0.66	10	150	0.01	100	ITO-220AB	Pt
MBR20E100FCT	20	100	0.66	10	120	0.01	100	ITO-220AB	Pt
MBR20B100FCTH	20	100	0.66	10	150	0.01	100	ITO-220AB	Alloy
MBR20L100FCT	20	100	0.59	10	150	0.01	100	ITO-220AB	Pt
 MBR20U100FCTH	20	100	0.54	10	150	0.05	100	ITO-220AB	Alloy
MBR20150FCT	20	150	0.69	10	150	0.01	150	ITO-220AB	Pt
MBR20B150FCTH	20	150	0.69	10	150	0.01	150	ITO-220AB	Alloy
MBR20L150FCT	20	150	0.65	10	150	0.01	150	ITO-220AB	Pt
MBR20200FCT	20	200	0.72	10	150	0.01	200	ITO-220AB	Pt
MBR30100FCT	30	100	0.85	15	350	0.01	100	ITO-220AB	Pt
MBR30150FCT	30	150	0.72	15	350	0.01	150	ITO-220AB	Pt
MBR30200FCT	30	200	0.75	15	350	0.01	200	ITO-220AB	Pt
SBL4VFCT	40	60	0.50	20	400	1.0	60	ITO-220AB	Mo
MBR40100FCT	40	100	0.69	20	400	0.01	100	ITO-220AB	Pt

Part Number	Maximum Average Rectified Current	Peak Repetitive Reverse Voltage	Forward Voltage Drop (@125°C)		Maximum Peak Forward Surge Current	Maximum Reverse Current @ Reted VR (25°C)		Package	Barrier
	$I_O$	$V_{RRM}$	$V_F @ I_F$		$I_{FSM}$	$I_R @ V_R$			
	A	V	V	A	A	mA	V		
<b>20A - 60A / TO-3P &amp; TO-247AD</b>									
MBR20150PT	20	150	0.69	10	150	0.01	150	TO-3P/247	Pt
MBR20200PT	20	200	0.72	10	150	0.01	200	TO-3P/247	Pt
SBL30L45PT	30	45	0.35	15	350	1.0	45	TO-3P/247	Alloy
SBL30L60PT	30	60	0.45	15	350	1.0	60	TO-3P/247	Mo
SBL30LL60PT	30	60	0.40	15	350	1.0	60	TO-3P/247	Mo
MBR30100PT	30	100	0.66	15	350	0.01	100	TO-3P/247	Pt
MBR30L100PT	30	100	0.63	15	350	0.01	100	TO-3P/247	Pt
MBR30LL100PT	30	100	0.60	15	350	0.01	100	TO-3P/247	Pt
MBR30150PT	30	150	0.72	15	350	0.01	150	TO-3P/247	Pt
<b>NEW</b> MBR30200PT	30	200	0.75	15	350	0.01	200	TO-3P/247	Pt
SBL40L15PT	40	15	0.27	20	400	8.0	15	TO-3P/247	Cr
SBL4030PT	40	30	0.35	20	400	1.0	30	TO-3P/247	Alloy
SBL4045PT	40	45	0.46	20	400	1.0	45	TO-3P/247	Mo
SBL40L45PT	40	45	0.41	20	400	1.0	45	TO-3P/247	Mo
SBL4060PT	40	60	0.50	20	400	1.0	60	TO-3P/247	Mo
SBL40L60PT	40	60	0.45	20	400	1.0	60	TO-3P/247	Mo
MBRH300SPT	40	60	0.62	20	350	0.01	60	TO-3P/247	Pt
MBRH300EPT	40	60	0.59	20	400	0.01	60	TO-3P/247	Pt
MBR40L60PT	40	60	0.57	20	400	0.01	60	TO-3P/247	Pt
MBR40100PT	40	100	0.69	20	400	0.01	100	TO-3P/247	Pt
<b>NEW</b> MBR40L100PT	40	100	0.66	20	400	0.01	100	TO-3P/247	Pt
<b>NEW</b> MBR40LL100PT	40	100	0.63	20	400	0.01	100	TO-3P/247	Pt
MBR40150PT	40	150	0.72	20	400	0.01	150	TO-3P/247	Pt
MBR40200PT	40	200	0.75	20	400	0.01	200	TO-3P/247	Pt
<b>NEW</b> MBR50100PT	50	100	0.69	25	500	0.01	100	TO-3P/247	Pt
SBL6040PT	60	40	0.44	30	500	1.0	40	TO-3P/247	Mo
SBL6060PT	60	60	0.50	30	500	1.0	60	TO-3P/247	Mo
<b>NEW</b> MBR60100PT	60	100	0.69	30	500	0.01	100	TO-3P/247	Pt
MBR60100P	60	100	0.69	30	500	0.01	100	TO-247AC	Pt
<b>Free-wheel Dode</b>									
FWSR310PT	30	45	0.44	10/20	250	1.0	45	TO-247AD	Mo
FWSL310PT	30	45	0.44	20/10	250	1.0	45	TO-247AD	Mo
FWSR315PT	45	45	0.44	15/30	400	1.0	45	TO-247AD	Mo
FWSL315PT	45	45	0.44	30/15	400	1.0	45	TO-247AD	Mo
FWSR320PT	60	40	0.44	20/40	500	1.0	45	TO-247AD	Mo
FWSL320PT	60	40	0.44	40/20	500	1.0	45	TO-247AD	Mo

Note:

1. All products conform to the standards of RoHS, WEEE & REACH.
2. All products meet to the requirements of PFOS, TBBP-A, PAHS and DMF.
3. Halogen-Free products available.
4. The test method of Forward Voltage Drop(VF) is per leg on common cathod TO-220AB & TO-3P/247AD.
5. Common anode isolation TO-220AB package available.
6. Electrostatic Discharge(ESD) protection from 4kv to 35kv by different voltage and package on Schottkys.



**SIRECT**

# ORGANIZATION OF SIRECTIFIER SEMICONDUCTORS



**Headquarters**

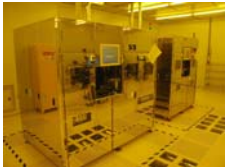
Sirectifier Global Corp., Delaware, U.S.A.



**Marketing**

**Logistic**

Sirectifier Electronic Co., Ltd., Taipei, Taiwan



HsinChu, Taiwan



Virginia, U.S.A.

**FAB**



**EMS**

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