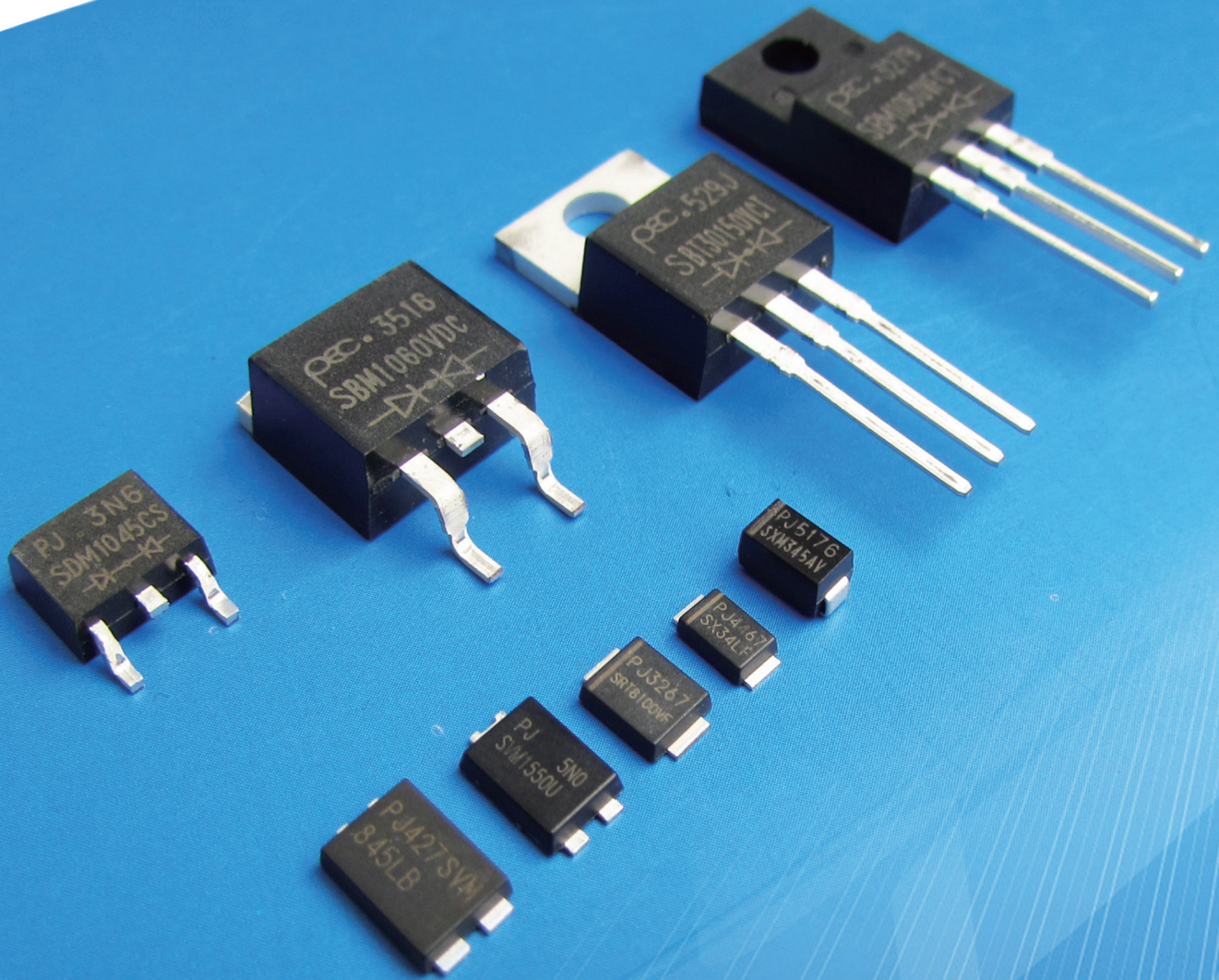


# PANJIT SUPER SCHOTTKY DIODES

Planar MOS and Trench MOS Barrier Schottky Diodes  
Suitable For DOE 6.0 Power Supply

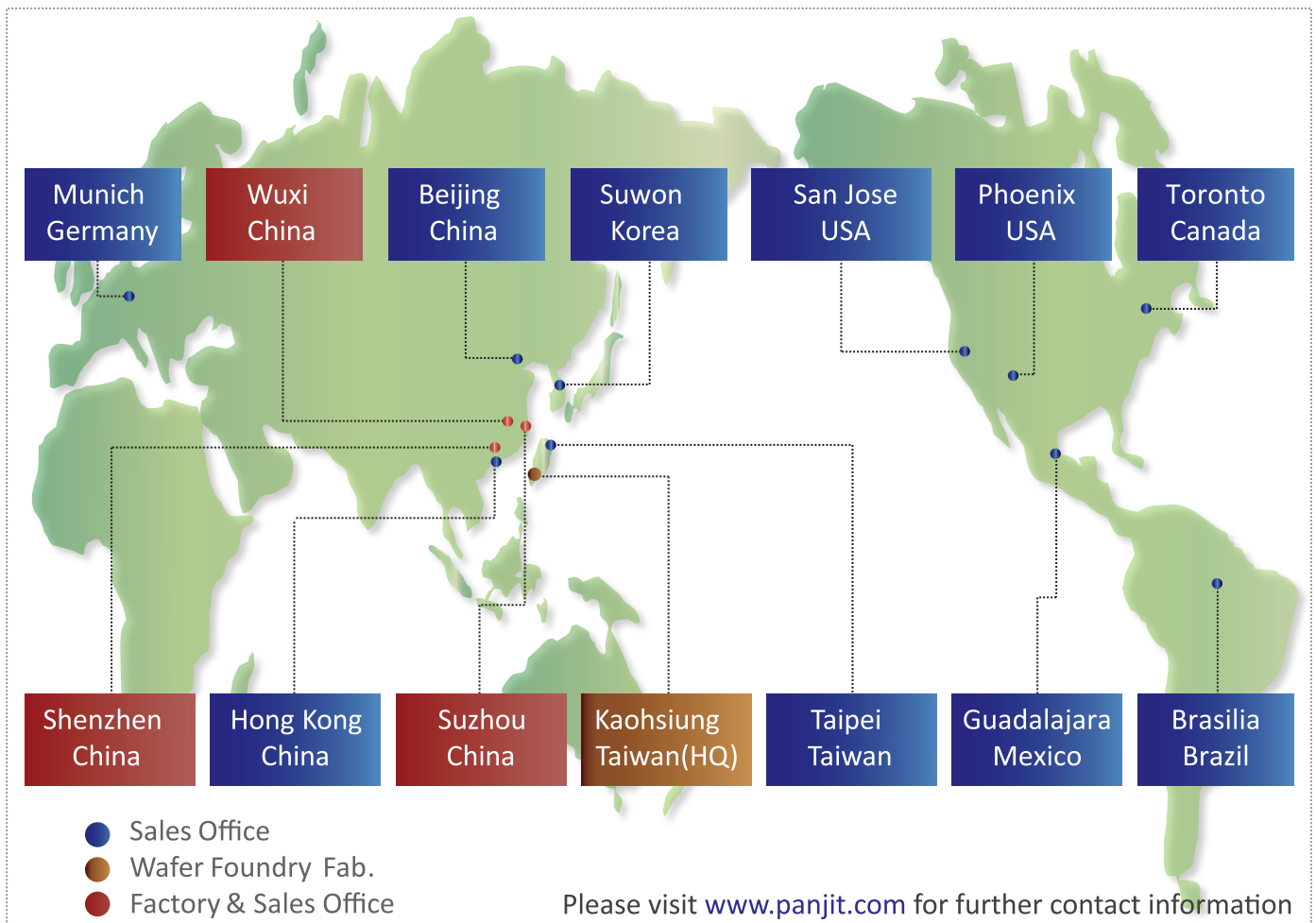


**Ultra low VF Schottky Diodes**

PanJit International Inc., founded in 1986 with headquarters in Kaohsiung, Taiwan, is a leading semiconductor products manufacturer with global operations, supplying solutions to customers in most of the key electronic market segments, delivering, as the core of our name says “Just in time” (Jit), high quality semiconductor products. PanJit’s capabilities integrate the state of the art technical infrastructure of wafer development, new product design, manufacturing and test of finished goods, supplying the right solutions to our customers.

PanJit has received many quality and environmental certifications recognized worldwide, making it on of the best solution provider, delivering with the highest standards in technology, performance, quality and service, without compromising our social and environmental commitment.

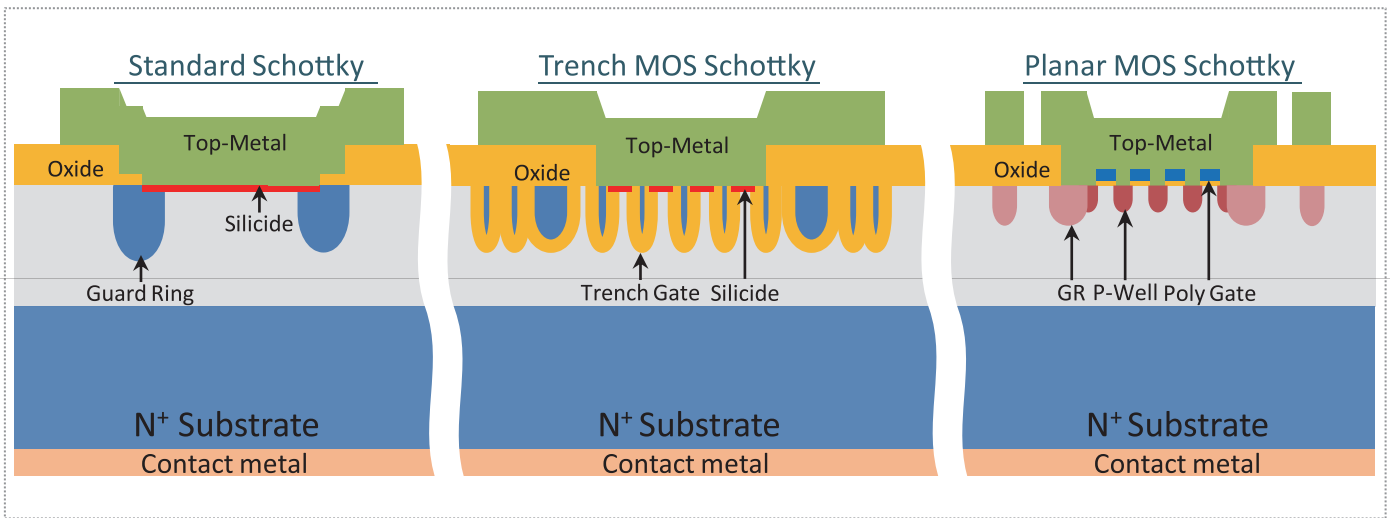
## Worldwide Operations





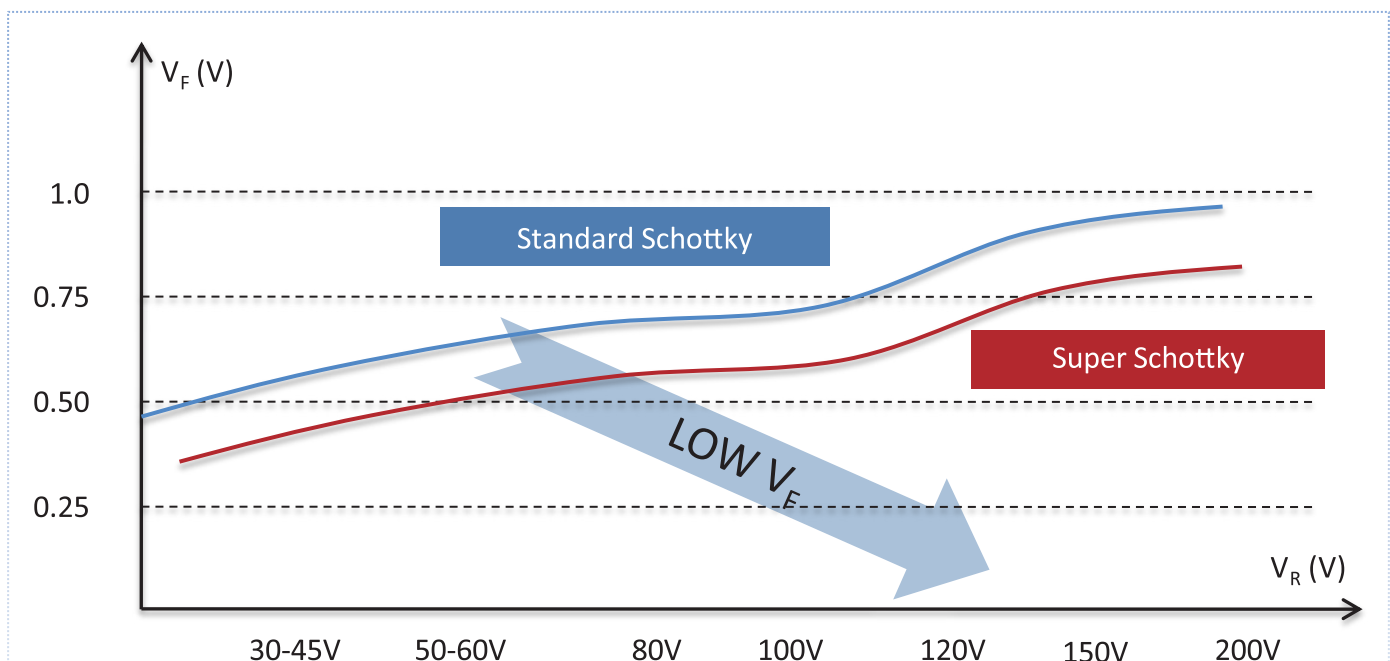
PanJit's Super Schottky is a new Schottky technology that utilizes a MOS manufacturing process (Standard Schottky uses a bipolar process) to create a superior two terminal device that has a lower forward voltage ( $V_F$ ) and leakage current ( $I_R$ ) than Standard Schottky .

The Super Schottky family is divided into 2 categories:

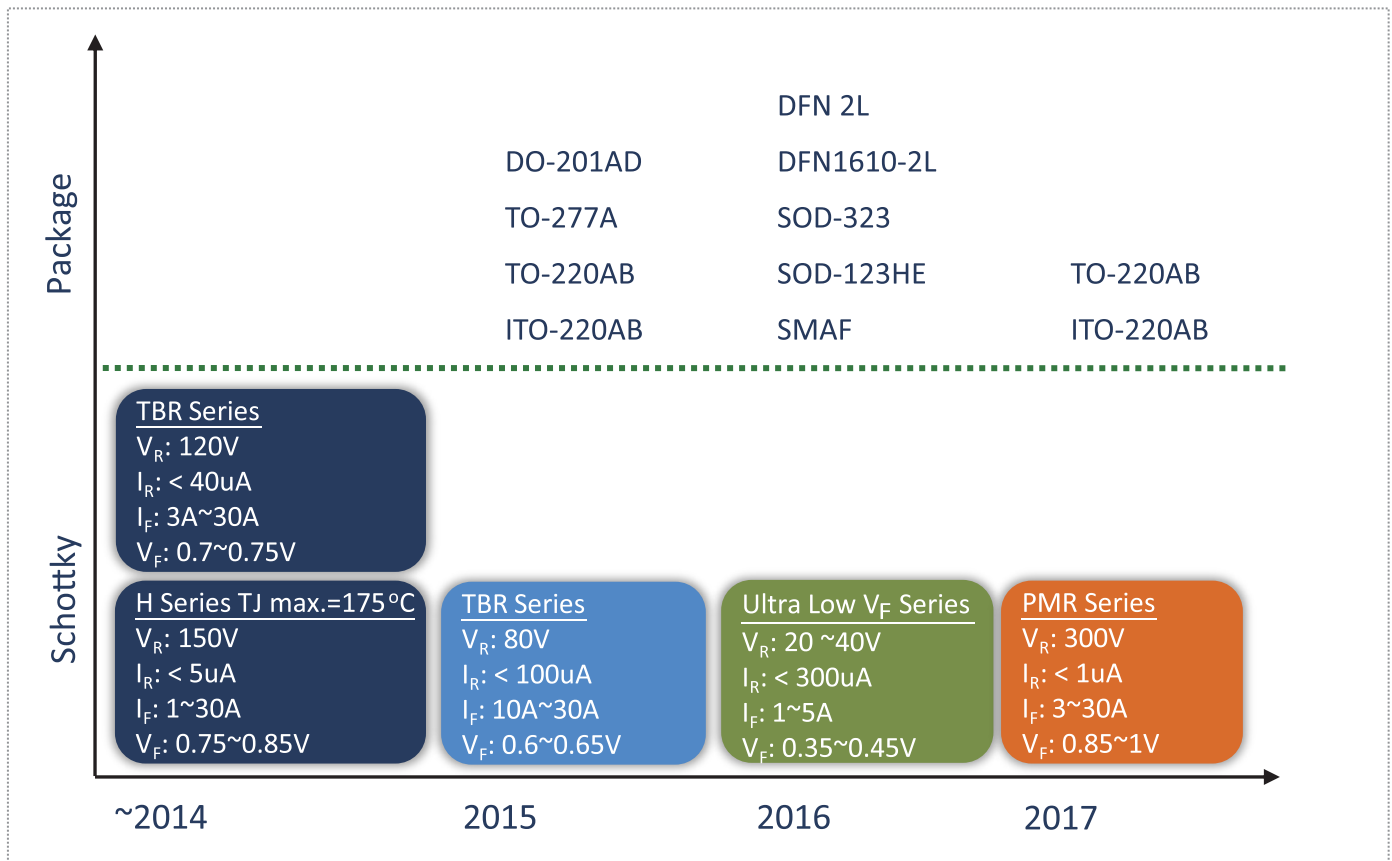


With the implantation of an upgraded technology, this new family has an extremely low forward voltage drop, lower reverse current, lower power dissipation at high current and small footprint package for high current devices.

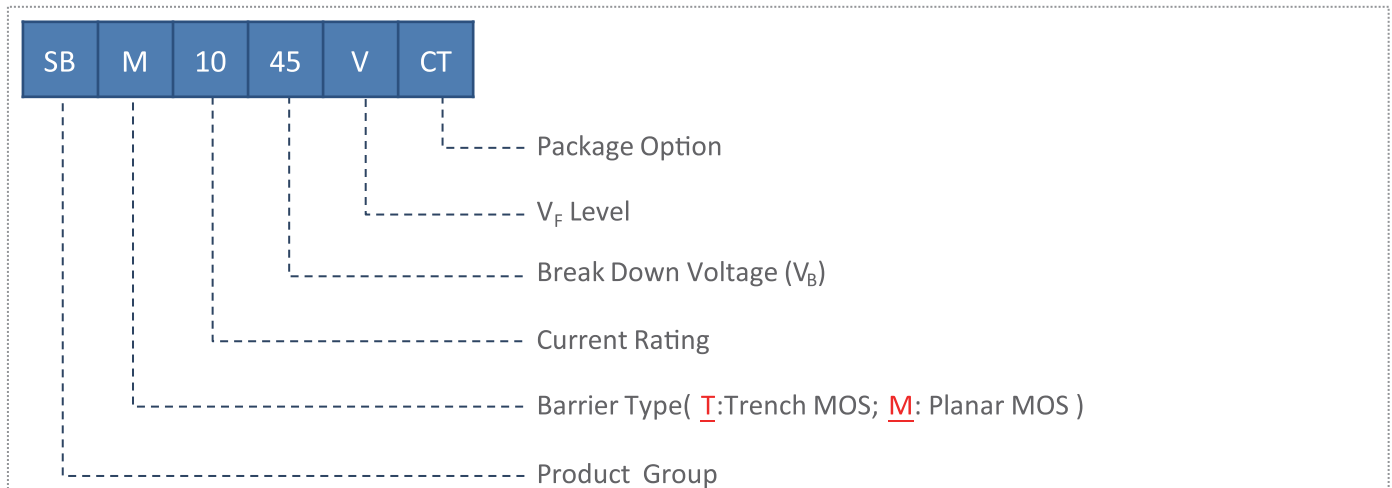
In addition, by applying this new Schottky family, the end-products are more able to company with the energy star specification accordingly.



### Super Schottky Road Map



### Super Schottky Nomenclature



$V_F$ Level	Typ. $V_F @ V_B$ (V)					
	45/50	60	80/100	120	150	200
L	0.45-0.49	0.51-0.55	0.71-0.75	0.76-0.80	0.81-0.85	0.86-0.90
V	0.39-0.44	0.46-0.50	0.66-0.70	0.71-0.75	0.76-0.8	0.81-0.85
U	0.34-0.38	0.41-0.45	0.60-0.65	0.66-0.70	0.71-0.75	0.76-0.8
X	<0.34	<0.41	<0.60	<0.66	<0.71	<0.76

## Features

- Forward current loss reduction
- Low leakage current at high temperature(Low HTIR)
- Ultra low voltage drop
- High frequency switching

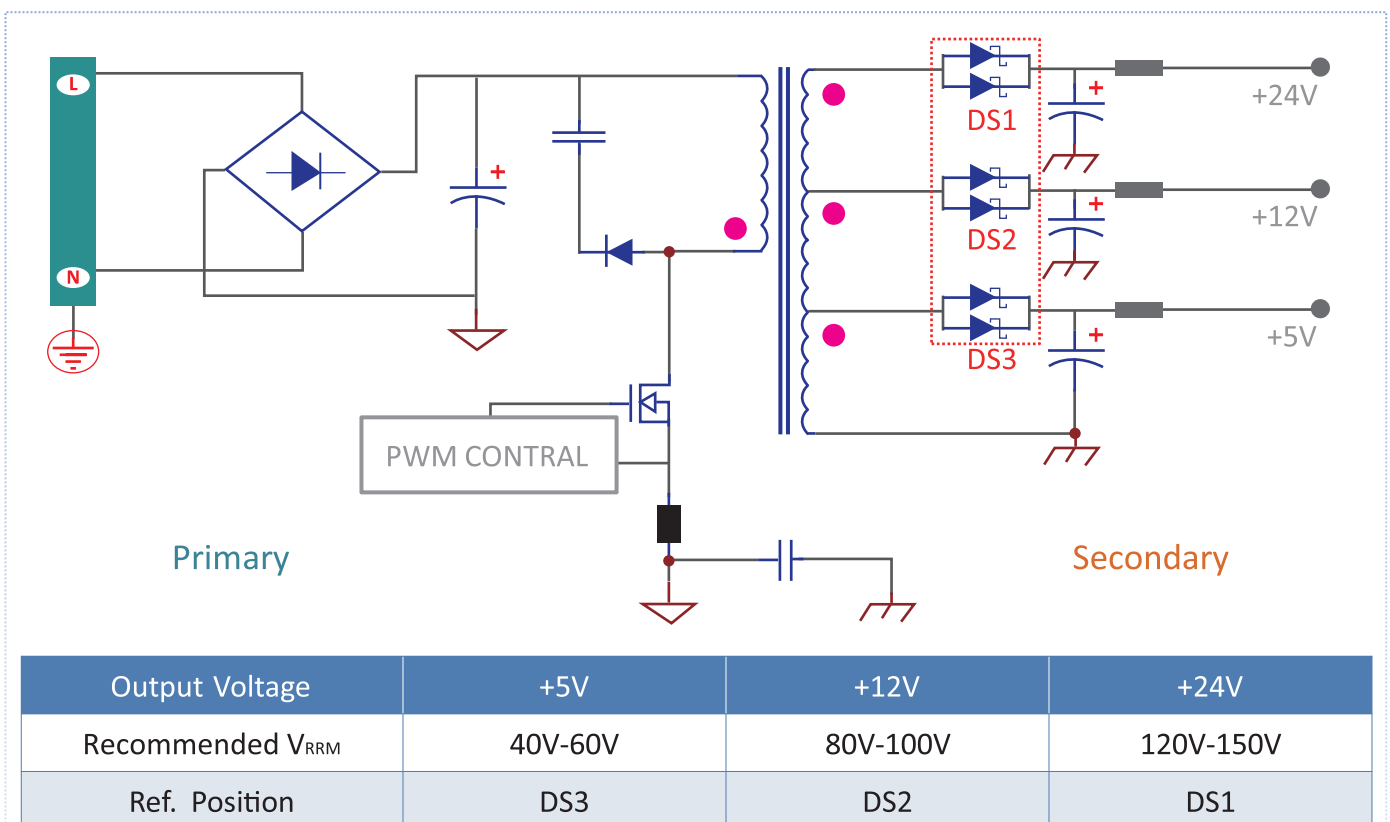


## Super Schottky Applications

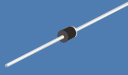






- Smart phone charger
- Adapter for Set-up box, NB, TV BOX, POS, etc.
- Power Supply for TV, LED, PC



## Typical Application Schematic



# PANJIT Super Schottky Product Tree

$I_{FAV}$ (A)	$V_R$ (V)	DO-41 	DO-15 	DO-201AD 	SOD-123HE 	SMA(F) 	SMB(F) 	TO-277(A/B) 
2	45	⊙						
	50	⊙						
3	45		⊙			⊙		
	60				⊙	⊙		
	100			⊙				
5	45			⊙		⊙	⊙	
	50					⊙		
	60			⊙		⊙	⊙	
	100			⊙		⊙	⊙	
8	45			⊙				⊙
	60			⊙			⊙	⊙
	80						⊙	
	100						⊙	⊙
10	45			⊙				⊙
	60			⊙				⊙
	100			⊙				⊙
	120							⊙
	150							⊙
12	100							⊙
	120							⊙
	150							⊙
15	45			⊙				⊙
	50			⊙				⊙
	60			⊙				⊙
	100			⊙				⊙
	120							⊙
	150							⊙
20	60							⊙
	80							⊙
	100							⊙
	120							⊙
	150							⊙

I <sub>FAV</sub> (A)	V <sub>R</sub> (V)	TO-252	TO-263	TO-220AB	ITO-220AB	TO-247AD
10	45	⊙	⊙	⊙	⊙	
	50	⊙				
	60	⊙	⊙	⊙	⊙	
	100		⊙	⊙	⊙	
	120			⊙	⊙	
	150			⊙	⊙	
12	60	⊙				
16	45	⊙				
	50	⊙				
	60		⊙	⊙	⊙	
20	45		⊙	⊙	⊙	
	60		⊙	⊙	⊙	
	100		⊙	⊙	⊙	
	120			⊙	⊙	
	150			⊙	⊙	
30	45		⊙	⊙		
	60		⊙	⊙	⊙	
	100		⊙	⊙	⊙	
	120			⊙	⊙	
	150			⊙	⊙	⊙
40	45		⊙			
	60			⊙		
	100			⊙	⊙	

$I_{FAV}$ (A)	Part Number	$V_{RRM}$ (V)	Max $V_F$ at $I_F$ (V)	$I_{FSM}$ (A)	Max $I_R@V_R$ ( $\mu$ A)	Package
2	SBM245L	45	0.47	50	40	DO-41
	SBM250L	50	0.5	50	40	DO-41
3	SBM345VMS	45	0.47	80	60	DO-15
	SXM345AV	45	0.47	80	60	SMA
	SXM34AVF	45	0.47	150	210	SMAF
	SSM3060VHE	60	0.5	80	220	SOD-123HE
	SXM36VF	60	0.5	80	220	SMAF
	SBT3100XSS	100	0.6	50	100	DO-201AD
5	SXM54ALF	45	0.54	150	210	SMAF
	SRM54AVF	45	0.43	150	210	SMBF
	SRM54ALF	45	0.49	120	210	SMBF
	SRM54AV	45	0.49	120	210	SMB
	SBM545LSS	45	0.49	120	210	DO-201AD
	SXT55LF	50	0.5	80	20	SMAF
	SXM56LF	60	0.6	80	220	SMAF
	SRM560VF	60	0.52	120	220	SMBF
	SBM560VSS	60	0.52	120	220	DO-201AD
	SXT510VF	100	0.71	80	20	SMAF
	SRT5100UF	100	0.66	80	50	SMBF
	SBT5100VSS	100	0.65	80	50	DO-201AD
8	SVM845L	45	0.5	150	250	TO-277
	SVM845LB	45	0.5	150	250	TO-277B
	SBM845LSS	45	0.5	150	250	DO-201AD
	SRM860VF	60	0.55	150	220	SMBF
	SVM860U	60	0.53	200	250	TO-277
	SVM860V	60	0.55	150	220	TO-277
	SVM860UB	60	0.53	200	250	TO-277B
	SVM860VB	60	0.55	150	220	TO-277B
	SBM860VSS	60	0.55	150	220	DO-201AD
	SRT880XF	80	0.61	150	60	SMBF
	SRT8100LF	100	0.79	150	50	SMBF
	SVT8100V	100	0.67	150	50	TO-277
	SVT8100VB	100	0.67	150	50	TO-277B
10	SVM1045V2	45	0.44	275	220	TO-277
	SVM1045V	45	0.47	275	250	TO-277
	SVM1045V2B	45	0.44	275	220	TO-277B
	SVM1045VA	45	0.47	275	250	TO-277A
	SVM1045VB	45	0.47	275	250	TO-277B
	SBM1045VSS	45	0.47	200	300	DO-201AD
	SDM1045CS	45	0.54	80	210	TO-252



$I_{FAV}$ (A)	Part Number	$V_{RRM}$ (V)	Max $V_F$ at $I_F$ (V)	$I_{FSM}$ (A)	Max $I_R@V_R$ ( $\mu$ A)	Package
10	SBM1045VDC	45	0.46	150	250	TO-263
	SBM1045VCT	45	0.46	150	250	TO-220AB
	SBM1045VFCT	45	0.46	150	250	ITO-220AB
	SDM1050LCS	50	0.57	80	210	TO-252
	SVM1060X	60	0.49	275	360	TO-277
	SVM1060U	60	0.52	250	220	TO-277
	SVM1060XB	60	0.49	275	360	TO-277B
	SVM1060UB	60	0.52	250	220	TO-277B
	SBM1060LSS	60	0.54	120	220	DO-201AD
	SDM1060LCS	60	0.58	80	210	TO-252
	SBM1060VDC	60	0.52	120	220	TO-263
	SBM1060VCT	60	0.52	120	220	TO-220AB
	SBM1060VFCT	60	0.52	120	220	ITO-220AB
	SVT10100U	100	0.67	150	60	TO-277
	SVT10100UB	100	0.67	150	60	TO-277B
	SBT10100VSS	100	0.74	120	50	DO-201AD
	SBT10100VDC	100	0.74	80	60	TO-263
	SBT10100UCT	100	0.61	150	60	TO-220AB
	SBT10100VCT	100	0.74	80	60	TO-220AB
	SBT10100UFCT	100	0.61	150	60	ITO-220AB
	SBT10100VFCT	100	0.74	80	60	ITO-220AB
	SVT10120V	120	0.8	150	25	TO-277
	SVT10120VB	120	0.8	150	25	TO-277B
	SBT10120LCT	120	0.83	80	20	TO-220AB
	SBT10120UFCT	120	0.75	150	20	ITO-220AB
	SBT10120LFCT	120	0.83	80	20	ITO-220AB
	SVT10150V	150	0.84	150	20	TO-277
	SVT10150VB	150	0.84	150	20	TO-277B
SBT10150LCT	150	0.86	80	40	TO-220AB	
SBT10150LFCT	150	0.86	80	40	ITO-220AB	
12	SDM1260VCS	60	0.55	120	210	TO-252
	SVT12100VB	100	0.67	200	100	TO-277B
	SVT12120U	120	0.79	200	25	TO-277
	SVT12120UB	120	0.79	200	25	TO-277B
	SVT12150U	150	0.82	200	30	TO-277
	SVT12150UB	150	0.82	200	30	TO-277B
15	SVM1545L	45	0.49	275	320	TO-277
	SVM1545LB	45	0.49	275	320	TO-277B
	SBT1545LSS	45	0.46	275	310	DO-201AD

$I_{FAV}$ (A)	Part Number	$V_{RRM}$ (V)	Max $V_F$ at $I_F$ (V)	$I_{FSM}$ (A)	Max $I_R@V_R$ ( $\mu$ A)	Package
15	SVM1550U	50	0.49	275	320	TO-277
	SVM1550V	50	0.51	280	320	TO-277
	SVM1550UA	50	0.49	275	320	TO-277A
	SVM1550UB	50	0.49	275	320	TO-277B
	SVM1550VB	50	0.51	280	320	TO-277B
	SBM1550USS	50	0.49	300	320	DO-201AD
	SVT1560V	60	0.51	300	250	TO-277
	SVM1560U	60	0.56	300	320	TO-277
	SVM1560V	60	0.59	250	200	TO-277
	SVT1560VB	60	0.51	300	250	TO-277B
	SVM1560UB	60	0.56	300	320	TO-277B
	SVM1560VB	60	0.59	250	200	TO-277B
	SBM1560LSS	60	0.57	150	220	DO-201AD
	SVT15100U	100	0.66	250	80	TO-277
	SVT15100L	100	0.76	200	60	TO-277
	SVT15100UB	100	0.66	250	80	TO-277B
	SVT15100LB	100	0.76	200	60	TO-277B
	SBT15100VSS	100	0.76	200	50	DO-201AD
	SVT15120U	120	0.79	250	35	TO-277
	SVT15120UB	120	0.79	250	35	TO-277B
SVT15150V	150	0.85	250	30	TO-277	
SVT15150VB	150	0.85	250	30	TO-277B	
16	SDM1645CS	45	0.54	120	210	TO-252
	SDM1650LCS	50	0.57	120	210	TO-252
	SBM1660VDC	60	0.55	150	220	TO-263
	SBM1660VCT	60	0.55	150	220	TO-220AB
	SBM1660VFCT	60	0.55	150	220	ITO-220AB
20	SBM2045VDC	45	0.45	280	320	TO-263
	SBM2045VCT	45	0.45	280	320	TO-220AB
	SBM2045VFCT	45	0.45	280	320	ITO-220AB
	SVT2060L	60	0.55	300	150	TO-277
	SVT2060LB	60	0.55	300	150	TO-277B
	SBM2060VDC	60	0.57	150	220	TO-263
	SBM2060VCT	60	0.57	150	220	TO-220AB
	SBM2060VFCT	60	0.57	150	220	ITO-220AB
	SVT2080U	80	0.66	300	150	TO-277
	SVT2080UA	80	0.66	300	150	TO-277A
	SVT2080UB	80	0.66	300	150	TO-277B
SVT20100U	100	0.66	250	80	TO-277	

$I_{FAV}$ (A)	Part Number	$V_{RRM}$ (V)	Max $V_F$ at $I_F$ (V)	$I_{FSM}$ (A)	Max $I_R$ @ $V_R$ ( $\mu$ A)	Package
20	SVT20100UA	100	0.66	250	80	TO-277A
	SVT20100UB	100	0.66	250	80	TO-277B
	SBT20100VDC	100	0.71	150	80	TO-263
	SBT20100UCT	100	0.65	200	180	TO-220AB
	SBT20100VCT	100	0.71	150	80	TO-220AB
	SBT20100LCT	100	0.75	150	60	TO-220AB
	SBT20100CT	100	0.8	120	60	TO-220AB
	SBT20100UFCT	100	0.65	200	180	ITO-220AB
	SBT20100VFCT	100	0.71	150	80	ITO-220AB
	SBT20100LFCT	100	0.75	150	60	ITO-220AB
	SBT20100FCT	100	0.8	120	60	ITO-220AB
	SVT20120U	120	0.79	250	35	TO-277
	SVT20120UB	120	0.79	250	35	TO-277B
	SBT20120LCT	120	0.82	150	20	TO-220AB
	SBT20120LFCT	120	0.82	150	20	ITO-220AB
	SVT20150U	150	0.84	250	30	TO-277
	SVT20150UB	150	0.84	250	30	TO-277B
	SBT20150LCT	150	0.85	150	40	TO-220AB
SBT20150LFCT	150	0.85	200	40	ITO-220AB	
30	SBM3045VDC	45	0.48	300	320	TO-263
	SBM3045VCT	45	0.48	300	320	TO-220AB
	SBM3060VDC	60	0.59	250	220	TO-263
	SBM3060UCT	60	0.56	250	500	TO-220AB
	SBM3060VCT	60	0.59	250	220	TO-220AB
	SBM3060VFCT	60	0.59	250	220	ITO-220AB
	SBT30100VDC	100	0.72	200	100	TO-263
	SBT30100VCT	100	0.72	200	100	TO-220AB
	SBT30100VFCT	100	0.72	200	100	ITO-220AB
	SBT30120LCT	120	0.84	200	30	TO-220AB
	SBT30120LFCT	120	0.84	200	30	ITO-220AB
	SBT30150VCT	150	0.84	250	60	TO-220AB
	SBT30150VFCT	150	0.84	250	60	ITO-220AB
	SBT30150VPT	150	0.84	250	60	TO-247AD
40	SBM4045LDC	45	0.51	300	320	TO-263
	SBM4060CT	60	0.7	250	220	TO-220AB
	SBT40100UCT	100	0.7	250	120	TO-220AB
	SBT40100VCT	100	0.76	250	120	TO-220AB
	SBT40100UFCT	100	0.7	250	120	ITO-220AB
	SBT40100VFCT	100	0.76	250	120	ITO-220AB



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