Elektronische Bauelemente

SMPD15150L

150V, 15A

Low VF Schottky Barrier Rectifiers

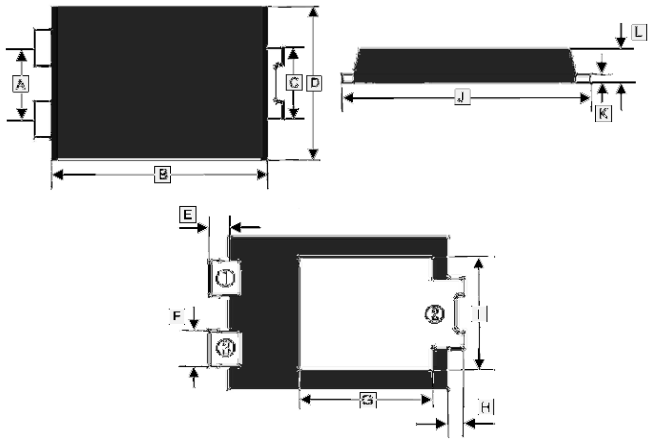
RoHS Compliant Product

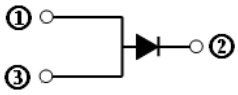
A suffix of “-C” specifies halogen & lead-free

FEATURES

- Schottky Barrier chip
- High thermal reliability
- Patented Super Barrier Rectifier Technology
- High forward surge capability
- Ultra low power loss and high efficiency
- Excellent high temperature stability
- Plastic material-UL flammability 94V-0

TO-277D





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.65	1.95	G	3.25	3.85
B	5.3	5.5	H	0.45	0.65
C	1.7	1.9	I	2.9	3.2
D	3.8	4.2	J	6.4	6.6
E	0.45	0.65	K	0.3	0.45
F	0.8	1.0	L	1.0	1.2

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-277D	5K	13 inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(T_A=25℃, unless otherwise specified. Single phase, ha lf wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

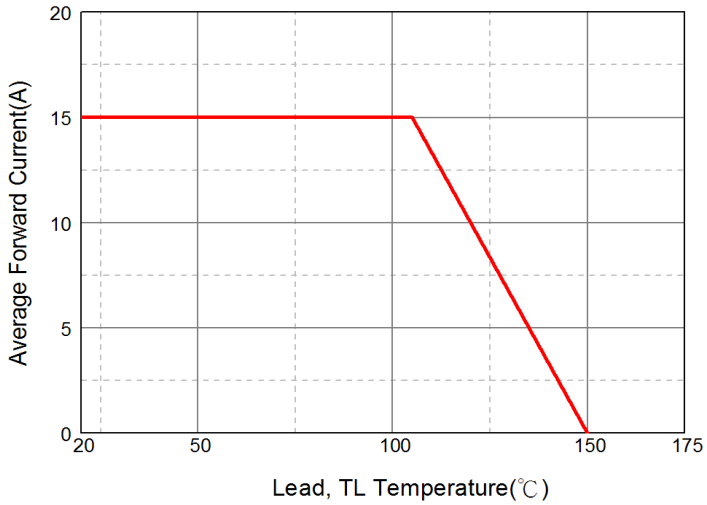
Parameter	Symbol	Rating	Unit
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	150	V
Maximum Working Peak Reverse Voltage	V_{RWM}	150	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum RMS Rectified Voltage	V_{RMS}	105	V
Maximum Average Rectified Output Current	I_O	15	A
Non-Repetitive Peak Forward Surge Current@ 8.3 ms single half sine-wave, superimposed on rated load (JEDEC method)	I_{FSM}	250	A
I^2t Rating for Fusing@ t＜8.3ms	I^2t	259.375	A^2S
Typical Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	110	℃ / W
Typical Thermal Resistance from Junction to Lead [2]	$R_{\theta JL}$	3.5	℃ / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	150, -55~150	℃

ELECTRICAL CHARACTERISTICS

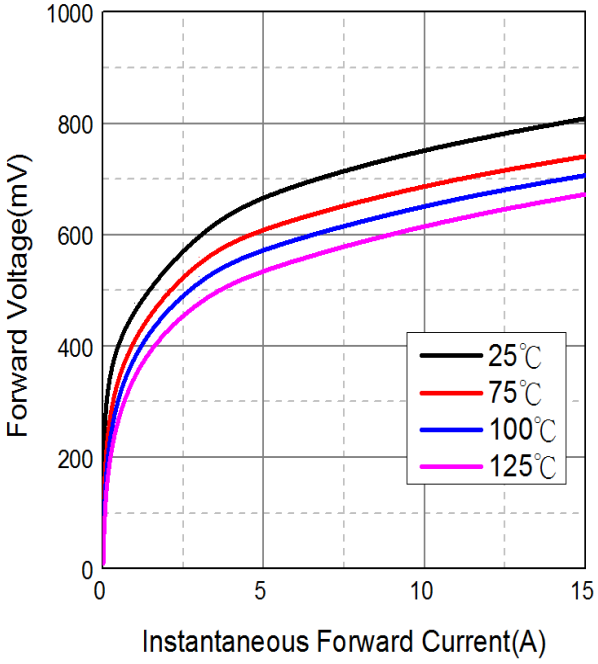
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Forward Voltage Drop	V_{FM}	0.48	-	V	I_F=1A, T_A=25℃
		0.68	-		I_F=5A, T_A=25℃
		0.8	0.85		I_F=15A, T_A=25℃
		0.66	-		I_F=15A, T_A=125℃
Peak Reverse Current at Rated DC Blocking Voltage	I_R	-	0.3	mA	T_A=25℃
		-	15		T_A=100℃
		7.5	-		T_A=125℃

CHARACTERISTIC CURVES

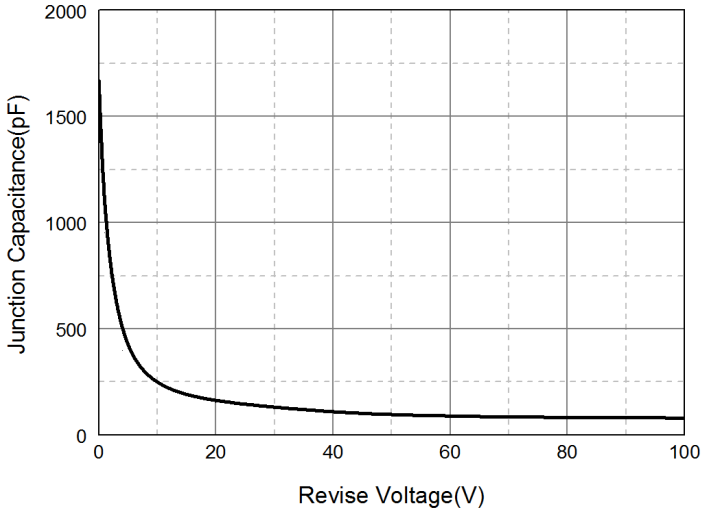
Typical Forward Current Derating Curve



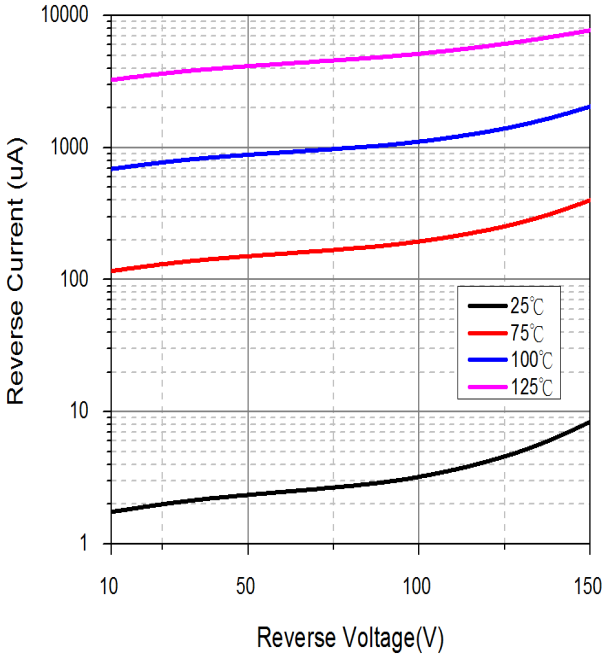
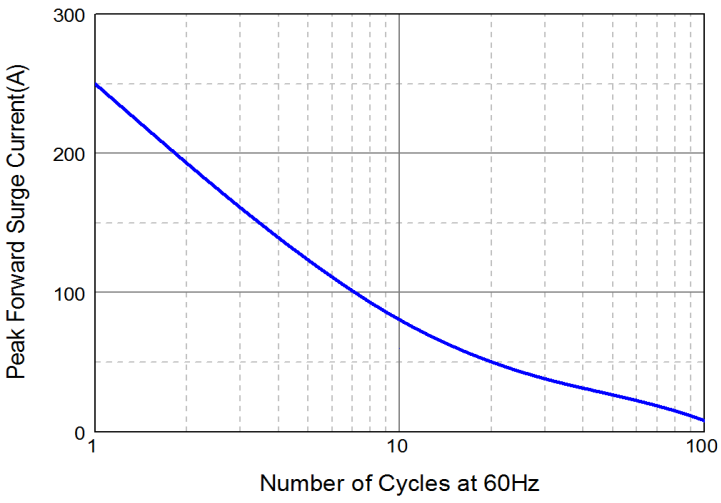
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current