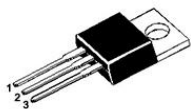


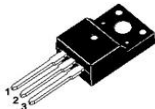


SBT20V150CT/FCT/DC

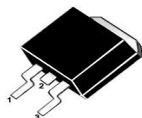
LOW VF SCHOTTKY RECTIFIER



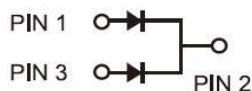
TO-220AB/CT



TO-220F/FCT



TO-263/DC



FEATURES

- Very low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection

APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum,10s per JESD 22-B106

Primary Characteristic

I_O	2*10A
V_{RRM}	150V
I_{FSM}	160A
V_F	0.68V
T_{jmax}	150°C

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Working Peak Reverse Voltage	V_{RWM}	150	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current	Per Leg	10	A
	Total	20	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave	I_{FSM}	160	A
Operating Temperature Range	T_J	-50 to +150	°C
Storage Temperature Range	T_{STG}	-50 to +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	2	°C/W
TO-220AB,TO-263		4	
TO-220F			

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V _F	Typ.	Max.	V
at I _F =3A	TA=25°C		0.65	-	
	TA=125°C		0.54	-	
at I _F =5A	TA=25°C		0.75	0.80	
	TA=125°C		0.59	-	
at I _F =10A	TA=25°C		1.05	1.10	
	TA=125°C		0.68	-	
Maximum Reverse Current at V _R =150V	TA=25°C		I _R	1.5	
	TA=125°C	1.5		-	mA

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle



SBT20V150CT/FCT/DC

LOW VF SCHOTTKY RECTIFIER

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

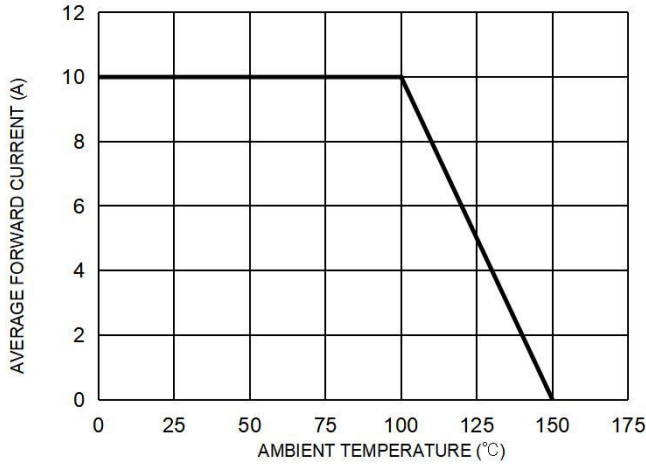


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

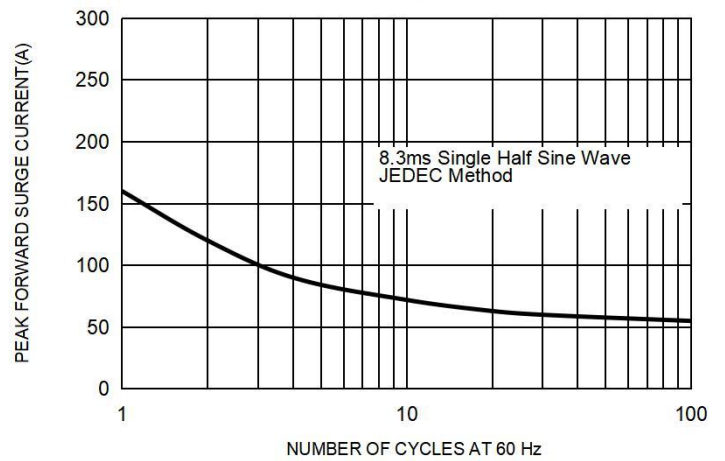


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

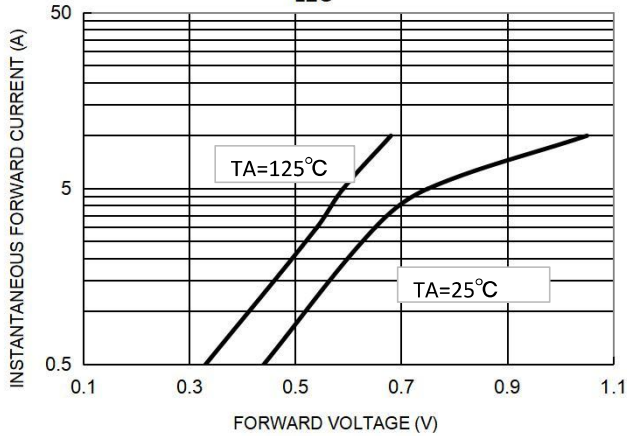
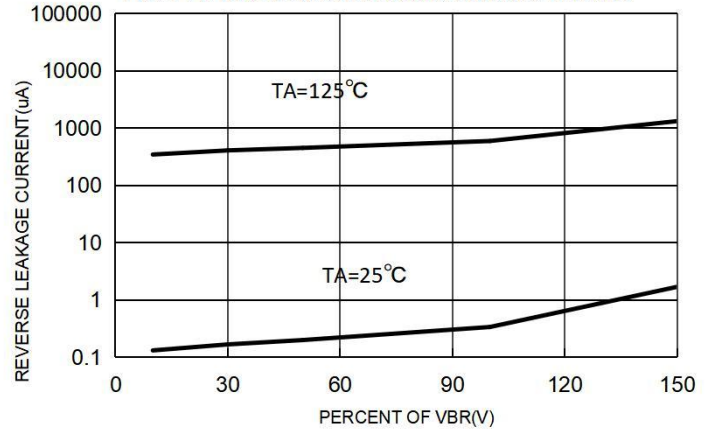


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Package Outline Dimensions millimeters

TO-220AB

Technical drawing of a TO-220AB package showing top and side views with dimensions A through O.

Top View Dimensions:

- A: Overall width
- B: Width of the top flange
- C: Width of the mounting tab
- D: Overall height
- E: Width of the lead
- F: Distance from the top of the lead to the top of the package body
- G: Distance from the bottom of the lead to the bottom of the package body
- H: Height of the package body
- I: Length of the lead
- J: Width of the lead
- K: Distance from the top of the lead to the top of the package body
- L: Distance from the bottom of the lead to the bottom of the package body
- M: Distance from the bottom of the lead to the bottom of the package body
- N: Distance from the bottom of the lead to the bottom of the package body
- O: Distance from the bottom of the lead to the bottom of the package body

Side View Dimensions:

- A: Overall width
- B: Width of the top flange
- C: Width of the mounting tab
- D: Overall height
- E: Width of the lead
- F: Distance from the top of the lead to the top of the package body
- G: Distance from the bottom of the lead to the bottom of the package body
- H: Height of the package body
- I: Length of the lead
- J: Width of the lead
- K: Distance from the top of the lead to the top of the package body
- L: Distance from the bottom of the lead to the bottom of the package body
- M: Distance from the bottom of the lead to the bottom of the package body
- N: Distance from the bottom of the lead to the bottom of the package body
- O: Distance from the bottom of the lead to the bottom of the package body

Dim.	Min.	Max.
A	10.15	10.35
B	2.65	2.95
C	3.70	3.90
D	28.5	29.5
E	1.30	1.45
F	6.35	6.55
G	2.9	3.3
H	15.0	16.0
I	0.38	0.42
J	4.45	4.55
K	1.25	1.35
L	Typ 5.08	
M	Typ 2.54	
N	3.1	3.3
O	0.76	0.84

All Dimensions in millimeter

TO-220F

Technical drawing of a TO-220F package showing top and side views with dimensions A through P.

Top View Dimensions:

- A: Overall width
- B: Distance from top edge to mounting holes
- C: Mounting hole diameter
- D: Overall height
- E: Distance from bottom edge to mounting holes
- F: Distance from bottom edge to lead start
- G: Lead width
- H: Lead pitch
- I: Lead length
- J: Lead thickness
- K: Lead angle
- L: Lead length
- M: Lead height
- N: Lead width
- O: Lead thickness
- P: Lead pitch

Dim.	Min.	Max.
A	9.95	10.25
B	2.95	3.25
C	1.25	1.45
D	12.95	13.25
E	0.50	0.65
F	3.1	3.3
G	1.30	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.60	4.75
K	2.50	2.65
L	6.35	6.55
M	15.4	16.0
N	2.75	3.05
O	0.48	0.52
P	0.76	0.84

All Dimensions in millimeter

TO-263

Technical drawing of a TO-263 package showing top and side views with dimensions A through O.

Top View Dimensions:

- A: Overall width
- B: Width of the main body
- C: Thickness of the main body
- D: Thickness of the top flange
- F: Thickness of the bottom flange
- H: Width of the mounting tab
- G: Thickness of the mounting tab
- I: Spacing between mounting tabs

Side View Dimensions:

- K: Width of the top flange
- L: Thickness of the top flange
- J: Height of the main body
- E: Height of the mounting tab
- M: Thickness of the mounting tab
- O: Radius of the mounting tab
- N: Thickness of the bottom flange

Dim.	Min.	Max.
A	10.1	10.2
B	7.4	7.6
C	1.3	1.5
D	0.55	0.75
E	5.0	6.0
F	1.4	1.6
G	0.78	0.86
H	1.2	1.3
I	Typ 2.54	
J	8.4	8.6
K	4.45	4.55
L	1.25	1.35
M	0.02	0.1
N	2.4	2.8
O	0.36	0.40

All Dimensions in millimeter