



SBM20L300CT
SBM20L300FCT
SBM20L300CK
SBM20L300CG

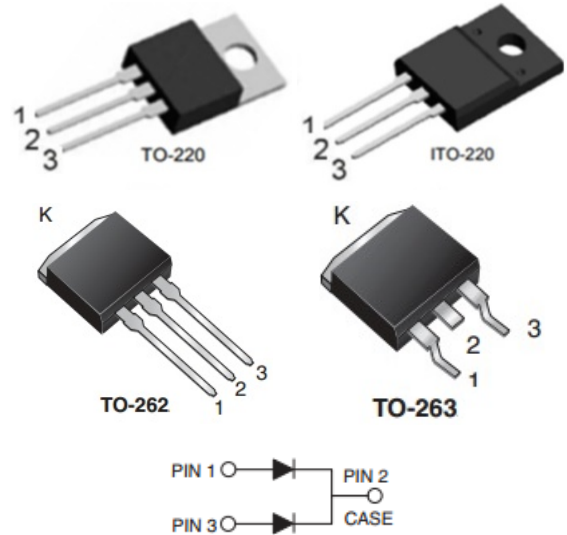
20A LOW VF SCHOTTKY RECTIFIER

Features

- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability

Mechanical Data

- Case: TO-220AB, ITO-220AB, TO-262AB, TO-263AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208



Ordering Information

Part No.	Package	Packing
SBM20L300CT	TO-220AB	50pcs / Tube
SBM20L300FCT	ITO-220AB	50pcs / Tube
SBM20L300CK	TO-262AB	50pcs / Tube
SBM20L300CG	TO-263AB	50pcs / Tube
SBM20L300CG	TO-263AB	800pcs / Reel

MAXIMUM RATINGS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	300	V
Maximum rms voltage	V _{RMS}	210	V
Maximum average forward rectified current	I _{F(AV)}	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	200	A
Typical thermal resistance per diode	R _{θJC}	15	°C/W
Operating junction temperature range	T _J	-55 to + 150	°C
Storage temperature range	T _{STG}	-55 to + 150	°C

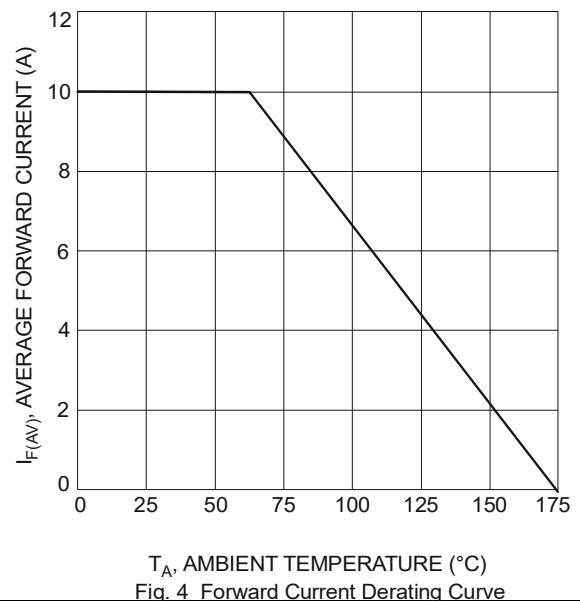
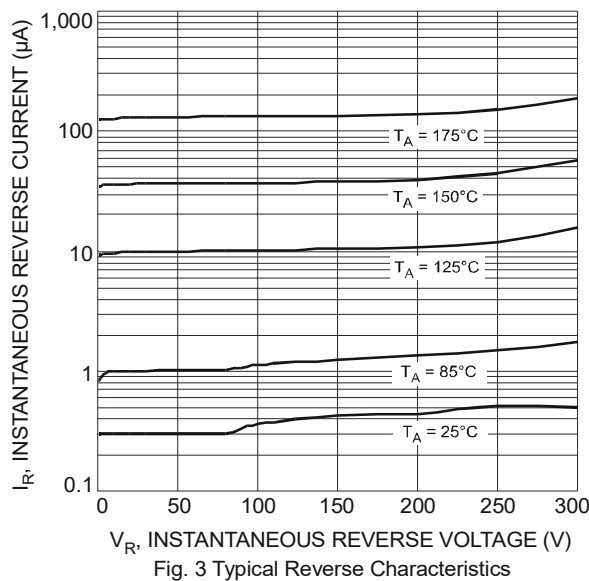
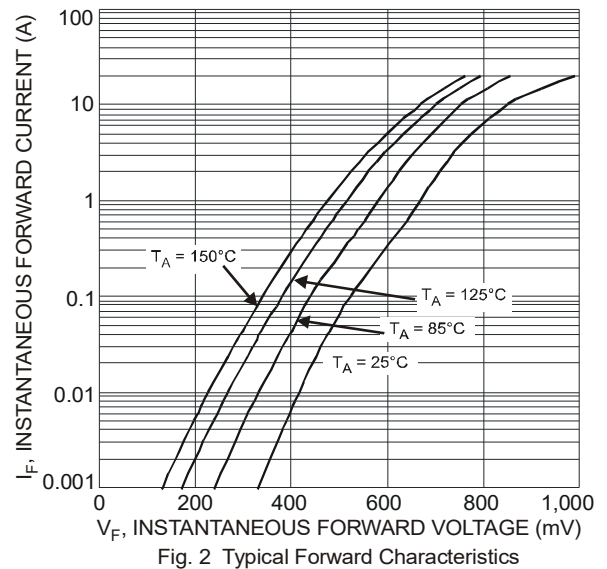
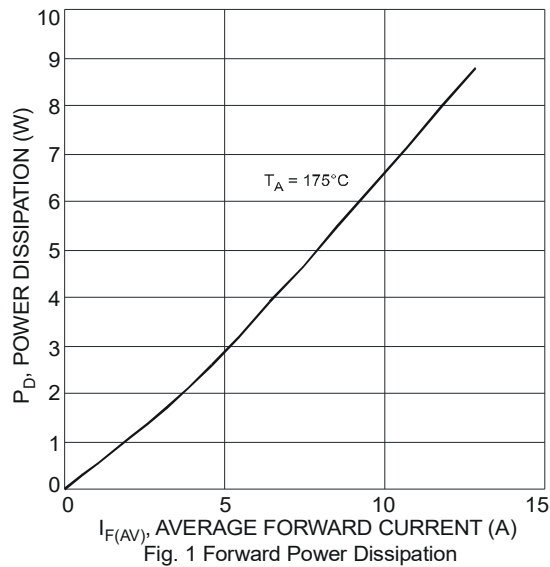
Note : 1. Mounted on infinite heatsink.



ELECTRICAL CHARACTERISTICS($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V_{BR}	$I_R=0.1\text{mA}$	300	-	-	V
Instantaneous forward voltage per diode	V_F	$I_F=10\text{A}$ $I_F=20\text{A}$	-	-	0.92 1.06	V
		$I_F=10\text{A}$	-	-	0.78	V
Reverse current per diode	I_R	$V_R=300\text{V}$	-	-	0.1	mA
		$V_R=300\text{V}$	-	-	10	mA

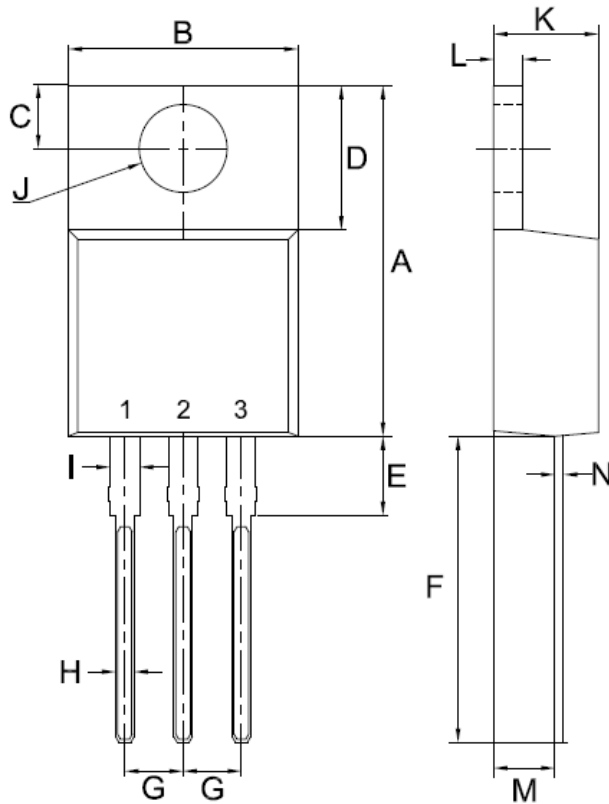
RATING AND CHARACTERISTIC CURVES



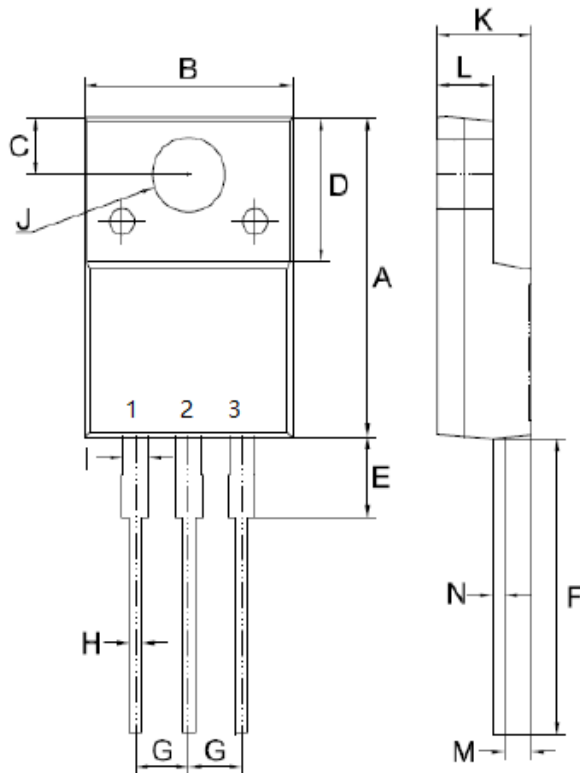


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Package Outline Dimensions



TO-220AB		
Unit:mm		
DIM	MIN	MAX
A	14.80	15.80
B	9.57	10.57
C	2.54	2.94
D	5.80	6.80
E	2.95	3.95
F	12.70	13.40
G	2.34	2.74
H	0.51	1.11
I	0.97	1.57
J	3.54 ϕ	4.14 ϕ
K	4.27	4.87
L	1.07	1.47
M	2.03	2.92
N	0.30	0.64

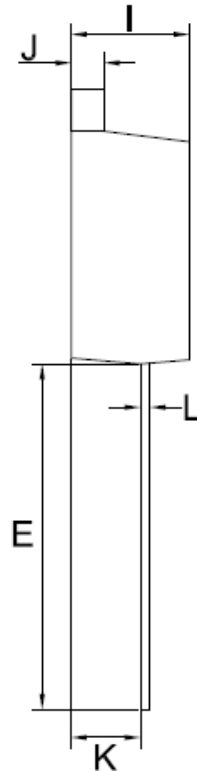
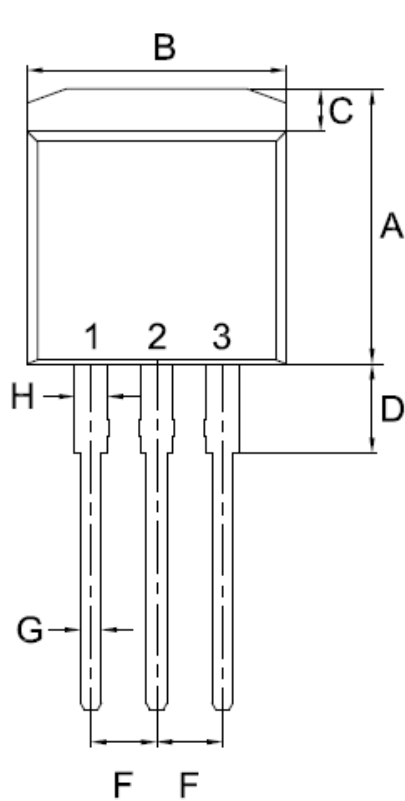


ITO-220AB		
Unit:mm		
DIM	MIN	MAX
A	14.50	15.50
B	9.50	10.50
C	2.50	2.90
D	6.30	7.30
E	3.30	4.30
F	13.00	14.00
G	2.35	2.75
H	0.30	0.90
I	0.90	1.50
J	3.20	3.80
K	4.24	4.84
L	2.52	2.92
M	1.09	1.49
N	0.47	0.64



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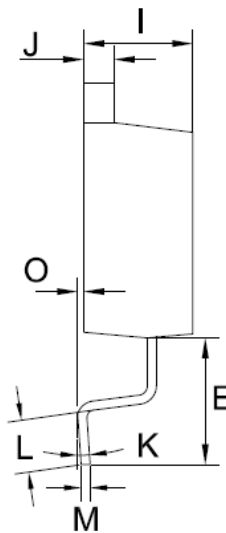
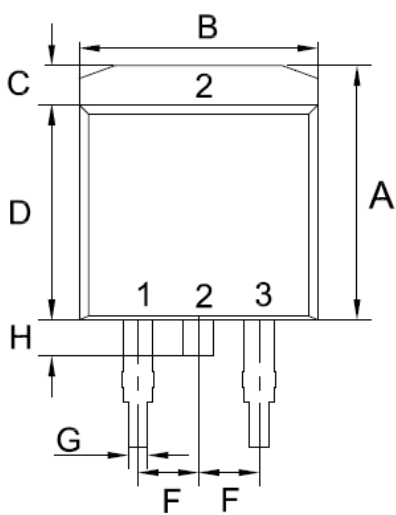
Package Outline Dimensions



TO-262 (I² PAK)

Unit:mm

DIM	MIN	MAX
A	10.14	11.14
B	9.57	10.57
C	1.44	1.84
D	2.95	3.95
E	12.70	13.40
F	2.34	2.74
G	0.51	1.11
H	0.97	1.57
I	4.27	4.87
J	1.07	1.47
K	2.03	2.92
L	0.30	0.46



TO-263 (D² PAK)

Unit:mm

DIM	MIN	MAX
A	10.44	10.84
B	9.81	10.21
C	1.44	1.84
D	8.80	9.20
E	4.46	4.66
F	2.44	2.64
G	0.61	1.01
H	0.70	1.30
I	4.27	4.87
J	1.07	1.47
K	0°	8°
L	2.10	2.50
M	0.30	0.46
O	0	0.25