



**SBP10L45D**

**SBP10L45P**

**10A LOW VF SCHOTTKY RECTIFIER**

## Features

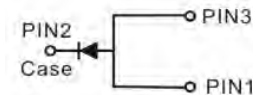
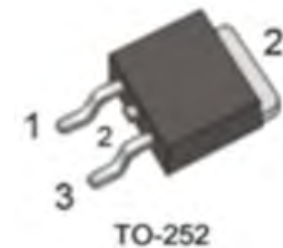
- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
- Soft, Fast Switching Capability

## Mechanical Data

- Case: TO252AA, TO251AA
- 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
SBP10L45D	TO-252AA	2500pcs / Reel
SBP10L45D	ITO-252AA	75pcs / Tube
SBP10L45P	TO-251AA	75pcs / Tube



## MAXIMUM RATINGS(T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	45	V
Maximum rms voltage	V <sub>RMS</sub>	31.5	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120	A
Typical junction capacitance (V <sub>R</sub> =4V, f=1MHz)	C <sub>J</sub>	500	pF
Typical thermal resistance per diode	R <sub>θJC</sub>	6	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to + 150	°C
Storage temperature range	T <sub>STG</sub>	-55 to + 150	°C

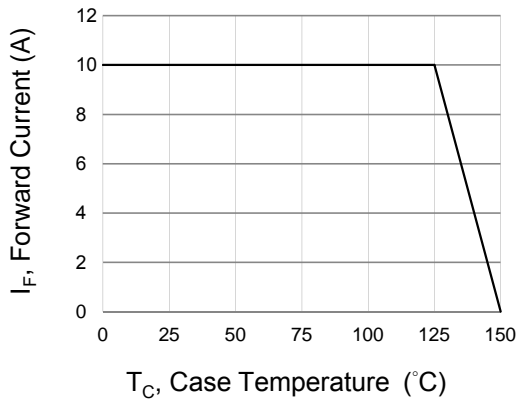
Note : 1. Mounted on infinite heatsink.



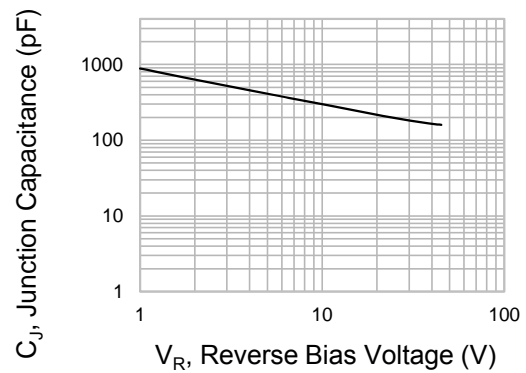
**ELECTRICAL CHARACTERISTICS**( $T_A=25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=0.5\text{mA}$	45	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=5\text{A}$	-	0.42	-	V
		$I_F=8\text{A}$		0.46		
		$I_F=10\text{A}$		0.50		
		$I_F=5\text{A}$	$T_J=125^\circ\text{C}$	-	0.35	-
$I_F=8\text{A}$	-	-	0.38	-		
$I_F=10\text{A}$	-	-	0.43	-		
Reverse current per diode	$I_R$	$V_R=36\text{V}$	-	-	100	$\mu\text{A}$
		$V_R=45\text{V}$	$T_J=25^\circ\text{C}$	-	-	$\mu\text{A}$
		$T_J=125^\circ\text{C}$	-	20	-	$\text{mA}$

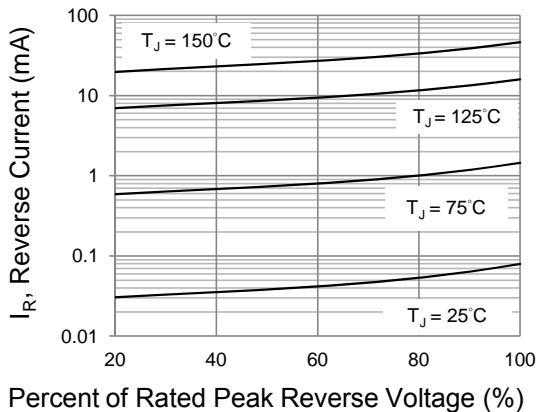
**RATING AND CHARACTERISTIC CURVES**



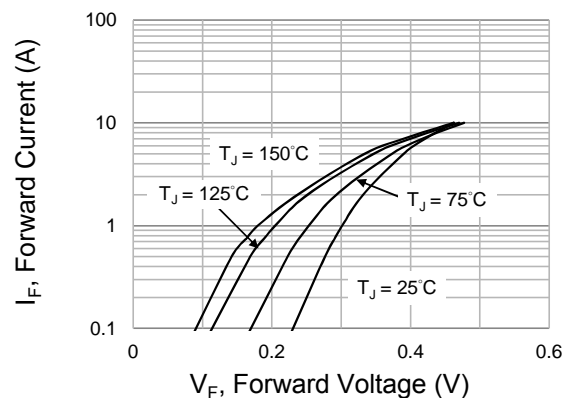
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

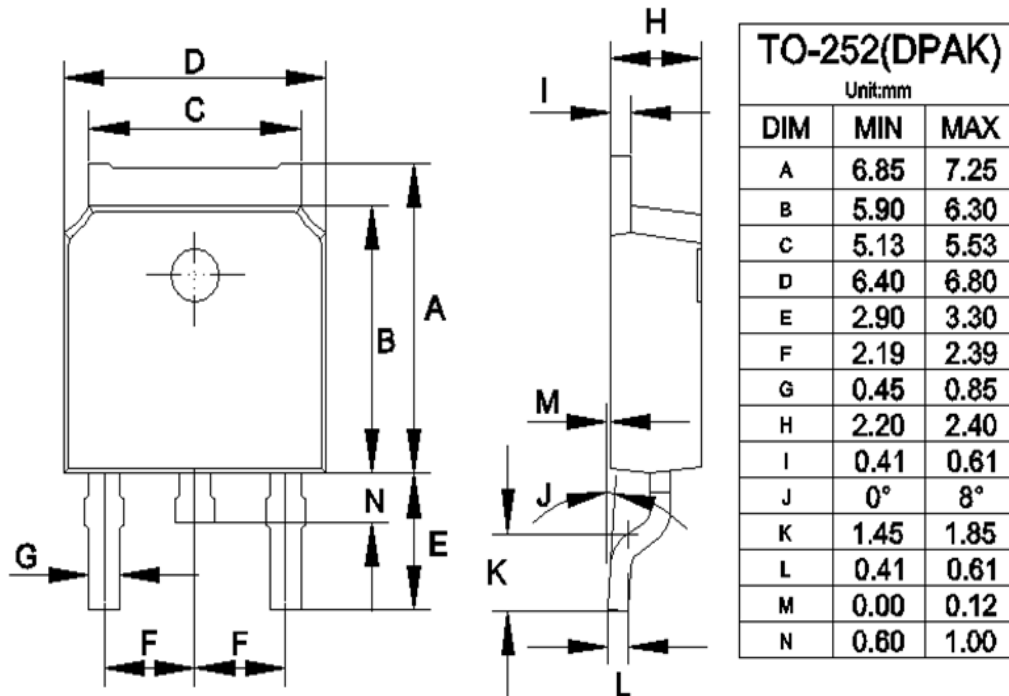


**Fig.4 Typical Forward Characteristics**

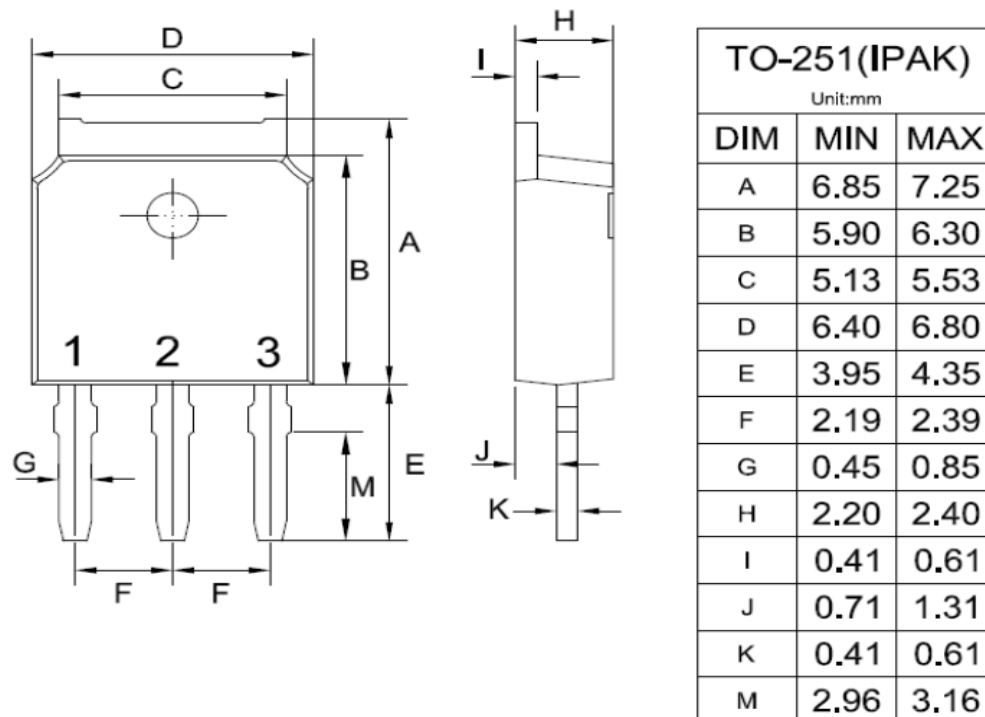


Package Outline Dimensions

### TO-252(DPAK) Package Outline



### TO-251(IPAK) Package Outline



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