

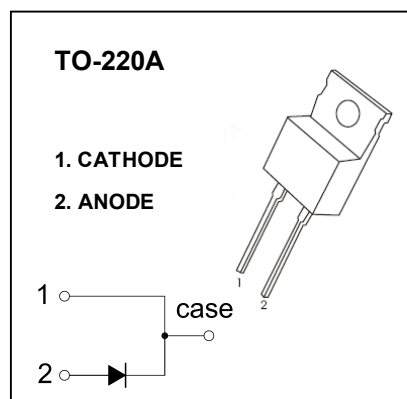
## TO-220A Plastic-Encapsulate Diodes

### SBL1630,35,40,45,50,60

SCHOTTKY BARRIER RECTIFIER

#### FEATURES

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



#### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted )

Symbol	Parameter	Value						Unit
		SBL 1630	SBL 1635	SBL 1640	SBL 1645	SBL 1650	SBL 1660	
$V_{RRM}$	Peak repetitive reverse voltage	30	35	40	45	50	60	V
$V_{RWM}$	Working peak reverse voltage							
$V_R$	DC blocking voltage							
$V_{R(RMS)}$	RMS reverse voltage	21	24.5	28	31.5	35	42	V
$I_O$	Average rectified output current@ $T_c=95^\circ\text{C}$	16						A
$I_{FSM}$	Non-Repetitive peak forward surge current 8.3ms half sine wave	275						A
$P_D$	Power dissipation	2						W
$R_{\theta JA}$	Thermal resistance from junction to ambient	50						$^\circ\text{C/W}$
$T_j$	Junction temperature	125						$^\circ\text{C}$
$T_{stg}$	Storage temperature	-55~+150						$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V <sub>(BR)</sub>	SBL1630	I <sub>R</sub> =1mA	30			V
		SBL1635		35			
		SBL1640		40			
		SBL1645		45			
		SBL1650		50			
		SBL1660		60			
Reverse current	I <sub>R</sub>	SBL1630	V <sub>R</sub> =30V			1	mA
		SBL1635	V <sub>R</sub> =35V				
		SBL1640	V <sub>R</sub> =40V				
		SBL1645	V <sub>R</sub> =45V				
		SBL1650	V <sub>R</sub> =50V				
		SBL1660	V <sub>R</sub> =60V				
Forward voltage	V <sub>F</sub>	SBL1630-1645	I <sub>F</sub> =16A			0.57	V
		SBL1650,1660				0.75	
Typical junction capacitance	C <sub>j</sub>	SBL1630-1660	V <sub>R</sub> =4V,f=1MHz		700		pF