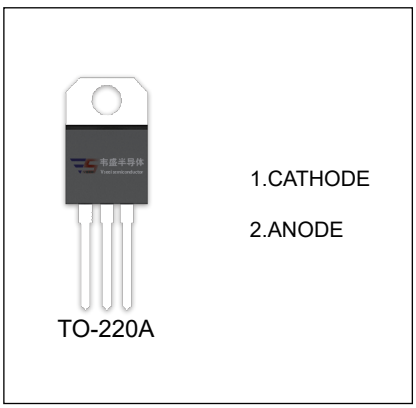
SBL1030,35,40,45,50,60

SCHOTTKY BARRIER RECTIFIER



FEATURES

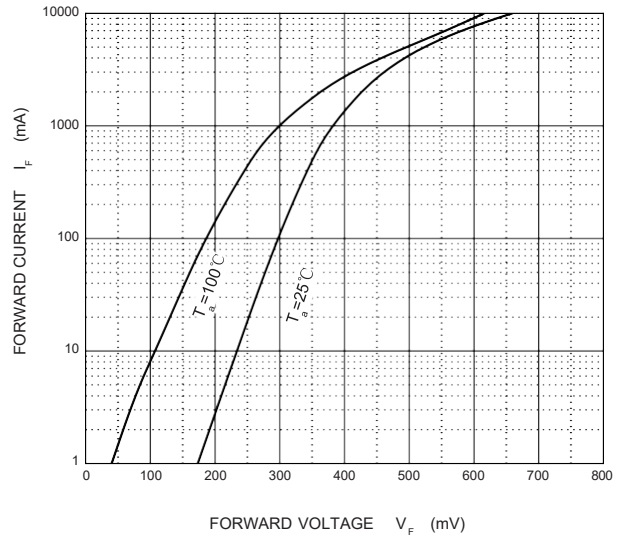
- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss,High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters,Free Wheeling, and Polarity Protection Applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

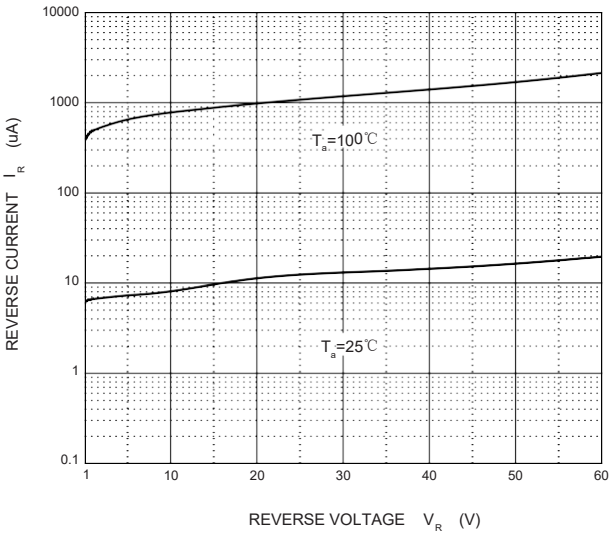
Symbol	Parameter	Value						Unit
		SBL 1030	SBL 1035	SBL 1040	SBL 1045	SBL 1050	SBL 1060	
V_{RRM}	Peak repetitive reverse voltage	30	35	40	45	50	60	V
V_{RWM}	Working peak reverse voltage							
V_R	DC blocking voltage							
$V_{R(RMS)}$	RMS reverse voltage	21	24.5	28	31.5	35	42	V
I_o	Average rectified output current@ T_c=95℃	10						A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	250						A
P_D	Power dissipation	2						W
$R_{\Theta JA}$	Thermal resistance from junction to ambient	50						℃/W
T_j	Operating Junction Temperature Range	-40 ~ +125						℃
T_{stg}	Storage Temperature Range	-55 ~ +150						℃

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	SBL1030	I_R=0.5mA	30			V
		SBL1035		35			
		SBL1040		40			
		SBL1045		45			
		SBL1050		50			
		SBL1060		60			
Reverse current	I_R	SBL1030	V_R=30V			0.45	mA
		SBL1035	V_R=35V				
		SBL1040	V_R=40V				
		SBL1045	V_R=45V				
		SBL1050	V_R=50V				
		SBL1060	V_R=60V				
Forward voltage	V_F	SBL1030-1045	I_F=10A			0.55	V
		SBL1050,1060				0.7	

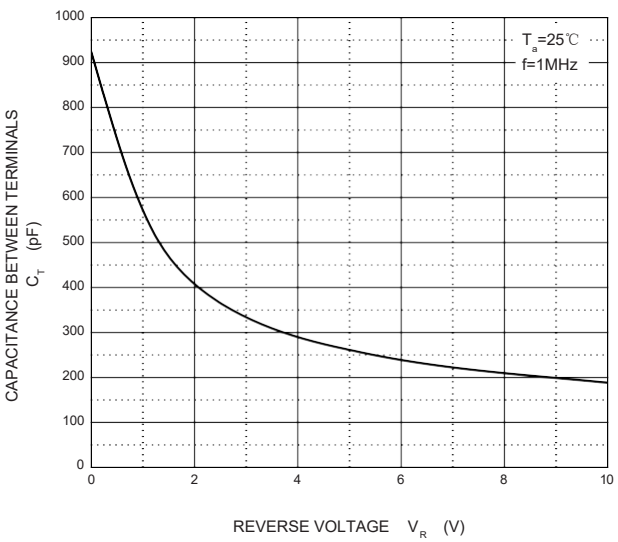
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve