



WAN LI ELECTRONICS (WUXI) CO.,LTD

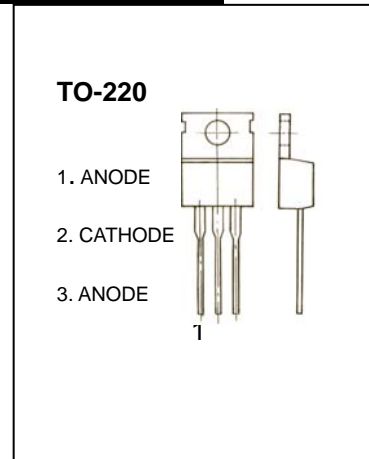
TO-220 Plastic-Encapsulate Diodes

SBL3030~3060CT

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



ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Characteristic	Symbol	SBL 3030CT	SBL 3035CT	SBL 3040CT	SBL 3050CT	SBL 3060CT	Unit	
Peak Repetitive Reverse Voltage	V_{RRM}							
Working Peak Reverse Voltage	V_{RWM}	30	35	40	50	60	V	
DC Blocking Voltage	V_R							
RMS Reverse Voltage	$V_{R(RMS)}$	21	24.5	28	35	42	V	
Average Rectified Output Current (Note 1) @ $T_C=95^\circ\text{C}$	I_O	30						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	250						A
Forward Voltage Drop @ $I_F=15\text{A}, T_C=25^\circ\text{C}$	V_{FM}	0.55			0.7		V	
Peak Reverse Current @ $T_C=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_C=100^\circ\text{C}$	I_{RM}	1			75		mA	
Typical Junction Capacitance (Note 2)	C_j	1100					pF	
Typical Thermal Resistance Junction to Case (Note 1)	$R_{\theta JC}$	2.5					$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150					$^\circ\text{C}$	

Notes:1. Thermal resistance junction to case mounted on heatsink.

2. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.

Typical Characteristics

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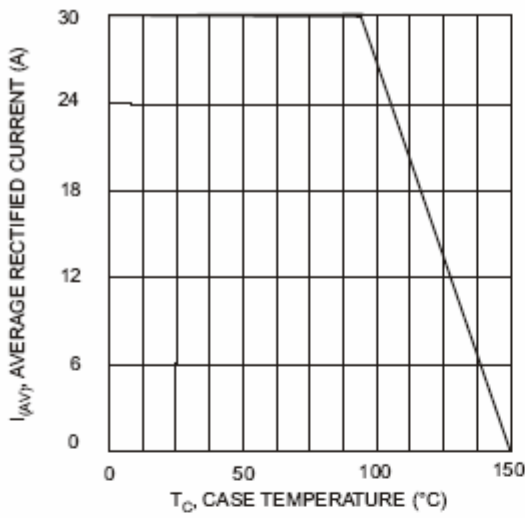


Fig. 1 Forward Derating Curve

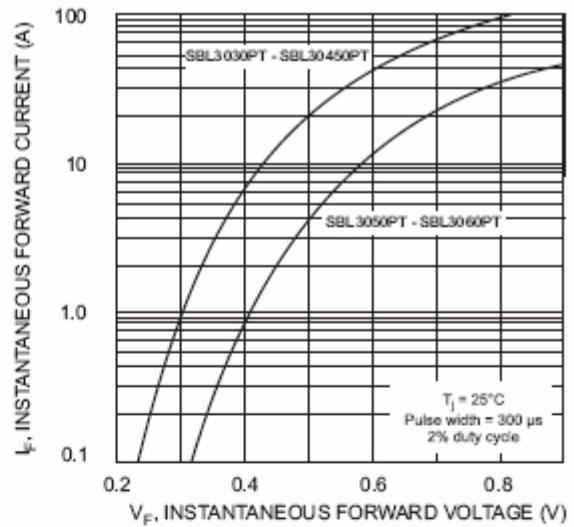


Fig. 2 Typical Fwd Characteristics per Element

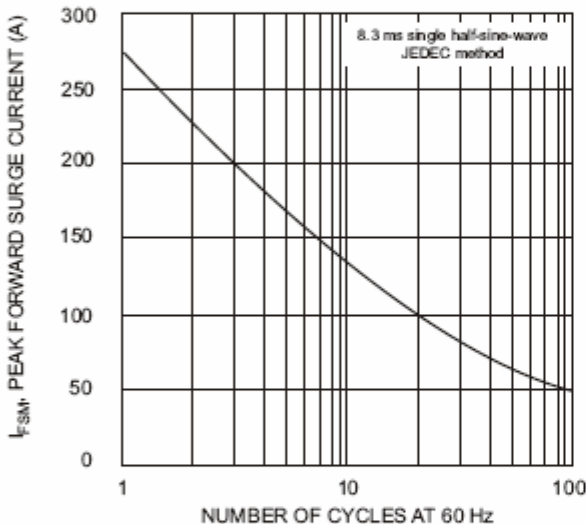


Fig. 3 Max Non-Repetitive Forward Surge Current

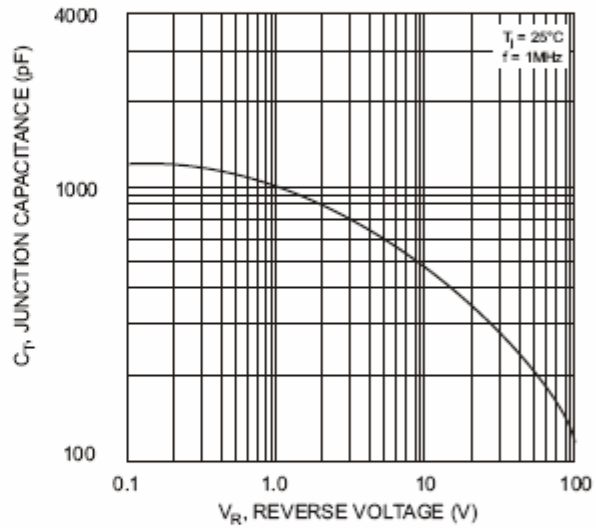


Fig. 4 Typical Capacitance per Element

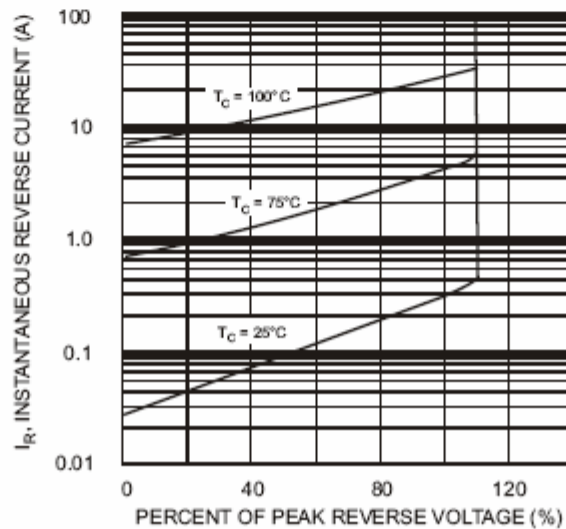


Fig. 5 Typical Reverse Characteristics per Element