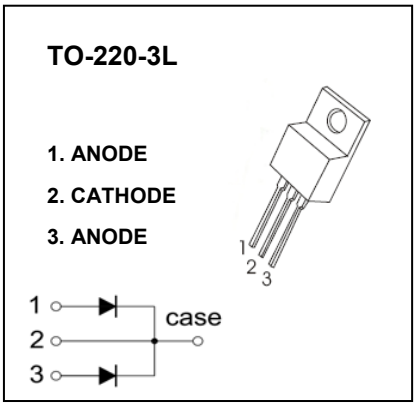
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220-3L Plastic-Encapsulate Diodes

SBL4030CT, 35CT, 40CT, 45CT, 50CT, 60CT

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 4030CT	SBL 4035CT	SBL 4040CT	SBL 4045CT	SBL 4050CT	SBL 4060CT	
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	40						A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	400						A
P_D	Power dissipation	2						W
$R_{\Theta JA}$	Thermal resistance from junction to ambient	50						℃/W
T_j	Junction temperature	125						℃
T_{stg}	Storage temperature	-55~+150						℃

A,Nov,2010

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	SBL4030CT	I_R=1mA	30			V
		SBL4035CT		35			
		SBL4040CT		40			
		SBL4045CT		45			
		SBL4050CT		50			
		SBL4060CT		60			
Reverse current	I_R	SBL4030CT	V_R=30V			1	mA
		SBL4035CT	V_R=35V				
		SBL4040CT	V_R=40V				
		SBL4045CT	V_R=45V				
		SBL4050CT	V_R=50V				
		SBL4060CT	V_R=60V				
Forward voltage	V_F	SBL4030CT-4045CT	I_F=20A			0.58	V
		SBL4050CT,4060CT				0.7	
Typical total capacitance	C_{tot}	SBL4030CT-4060CT	V_R=4V,f=1MHz		800		pF