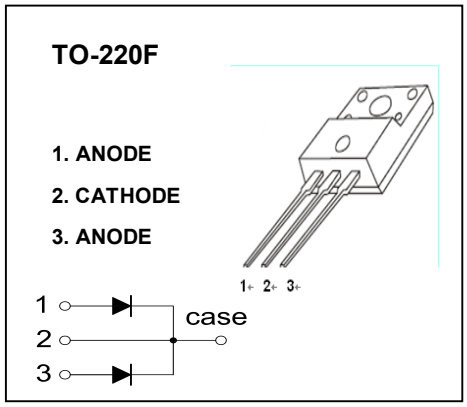
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220F Plastic-Encapsulate Diodes

SBL2030, 35, 40, 45, 50FCT

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
		SBL20 30FCT	SBL20 35FCT	SBL20 40FCT	SBL20 45FCT	SBL 20 50FCT	
V_{RRM}	Peak repetitive reverse voltage	30	35	40	45	50	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	V
I_O	Average rectified output current	20					A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	150					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					℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	SBL2030FCT	I_R=0.5mA	30			V
		SBL2035FCT		35			
		SBL2040FCT		40			
		SBL2045FCT		45			
		SBL2050FCT		50			
Reverse current	I_R	SBL2030FCT	V_R=30V			0.45	mA
		SBL2035FCT	V_R=35V				
		SBL2040FCT	V_R=40V				
		SBL2045FCT	V_R=45V				
		SBL2050FCT	V_R=50V				
Forward voltage	V_F	SBL2030FCT-2045FCT	I_F=10A			0.55	V
		SBL2050FCT				0.7	
Typical total capacitance	C_{tot}	SBL2030-2050FCT	V_R=4V,f=1MHz		600		pF