

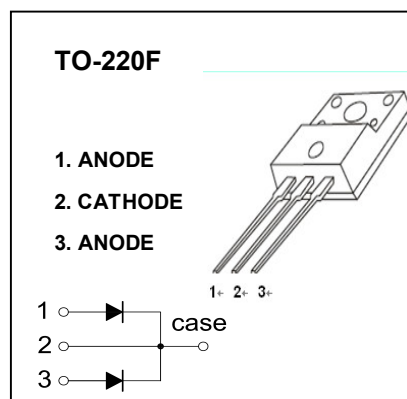
TO-220F Plastic-Encapsulate Diodes

SBL3030, 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 ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value					Unit
		SBL30 30FCT	SBL30 35FCT	SBL30 40FCT	SBL30 45FCT	SBL30 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	30					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					$^{\circ}\text{C}/\text{W}$
T_j	Junction temperature	125					$^{\circ}\text{C}$
T_{stg}	Storage temperature	-55~+150					$^{\circ}\text{C}$

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

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V _(BR)	SBL3030FCT	I _R =1mA	30			V
		SBL3035FCT		35			
		SBL3040FCT		40			
		SBL3045FCT		45			
		SBL3050FCT		50			
Reverse current	I _R	SBL3030FCT	V _R =30V			1	mA
		SBL3035FCT	V _R =35V				
		SBL3040FCT	V _R =40V				
		SBL3045FCT	V _R =45V				
		SBL3050FCT	V _R =50V				
Forward voltage	V _F	SBL3030FCT-3045FCT	I _F =15A			0.55	V
		SBL3050FCT				0.7	
Typical total capacitance	C _{tot}	SBL3030FCT-3050FCT	V _R =4V,f=1MHz		420		pF