SBD20150TA、SBDF20150TA SCHOTTKY BARRIER RECTIFIER

MAIN CHARACTERISTICS

I_O	20A
V_{RRM}	150 V
T_j	150℃
$V_{F(typ)}$	0.74V （@Tj=125℃）

FEATURES

- Low Power Loss,High Efficiency
- Guard Ring Die Construction for Transient Protection
- High Current Capability and Low Forward Voltage Drop


TO-220F


TO-220C

1.ANODE

2.CATHODE

3.ANODE

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	SBD		Unit
		20150TA	F20150TA	
V_{RRM}	Peak repetitive reverse voltage	150		V
V_{RWM}	Working peak reverse voltage			
V_R	DC blocking voltage			
$V_{R(RMS)}$	RMS reverse voltage	105		V
I_O	Average rectified output current	20		A
I_{FSM}	Non-Repetitive peak forward surge current (8.3ms half sine wave)	200		A
$R_{\Theta Jc}$	Thermal resistance from junction to case ,Tc=25℃	2.0	3.0	℃/W
$R_{\Theta JA}$	Thermal resistance from junction to ambient	62.5		℃/W
T_j	Junction temperature	150		℃
T_{stg}	Storage temperature	-55~+150		℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=0.1mA		150			V
Reverse current	I_R	V_R=150V	Tj =25℃		5.0	30	uA
			Tj =125℃		5.0		mA
Forward voltage	V_F	I_F=10A	Tj =25℃		0.84		V
			Tj =125℃		0.63		V
		I_F=20A	Tj =25℃		1.25	1.30	V
			Tj =125℃		0.74		V

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

FIG.1: FORWARD CURRENT DERATING CURVE

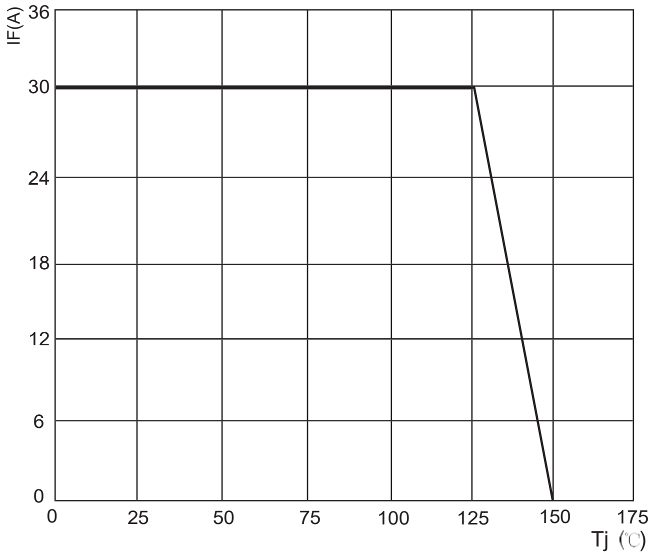

FIG.2: TYPICAL FORWARD CHARACTERISTICS

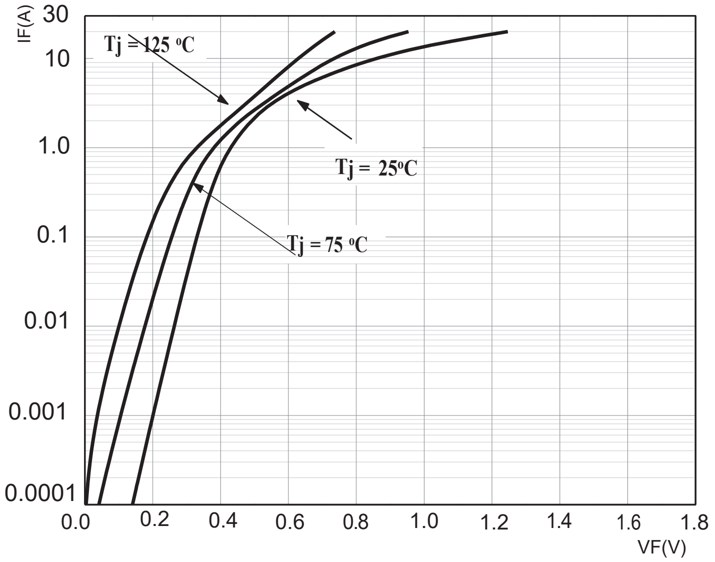

FIG.3: TOTAL CAPACITANCE DERATING CURVE

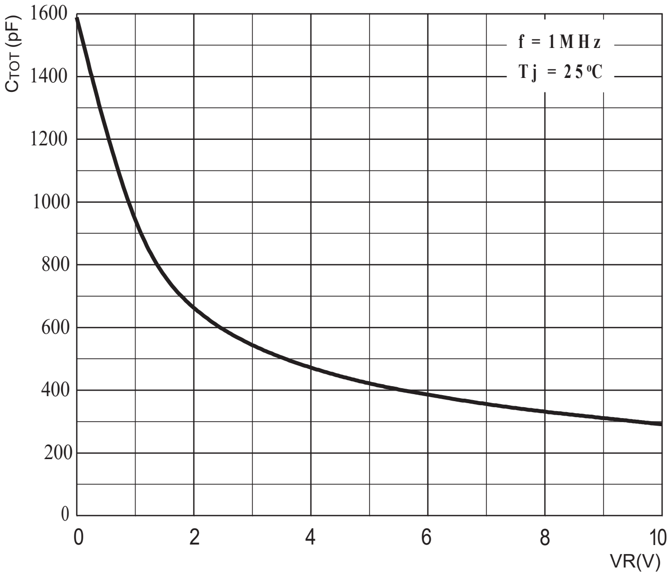

FIG.4: TYPICAL REVERSE CHARACTERISTICS