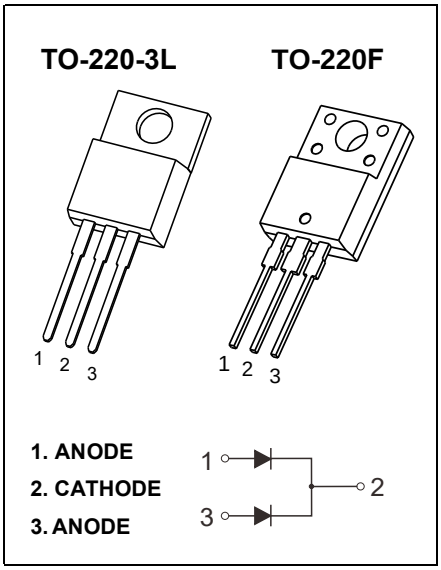
SBD30120TCTB、SBDF30120TCTB SCHOTTKY BARRIER RECTIFIER

MAIN CHARACTERISTICS

I_O	30（2×15）A
V_{RRM}	120 V
T_j	150 ℃
$V_{F(typ)}$	0.68V （@Tj=125℃）



FEATURES

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

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	SBD		Unit
		30120TCTB	F30120TCTB	
V_{RRM}	Peak repetitive reverse voltage	120		V
V_{RWM}	Working peak reverse voltage			
V_R	DC blocking voltage			
$V_{R(RMS)}$	RMS reverse voltage	84		V
I_O	Average rectified output current	30		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		120			V
Reverse current	I_R	V_R=120V	Tj =25℃		10	100	uA
			Tj =125℃		10		mA
Forward voltage	V_F	I_F=10A	Tj =25℃		0.69		V
			Tj =125℃		0.61		V
		I_F=15A	Tj =25℃		0.83	0.89	V
			Tj =125℃		0.68		V

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

FIG.1: FORWARD CURRENT DERATING CURVE

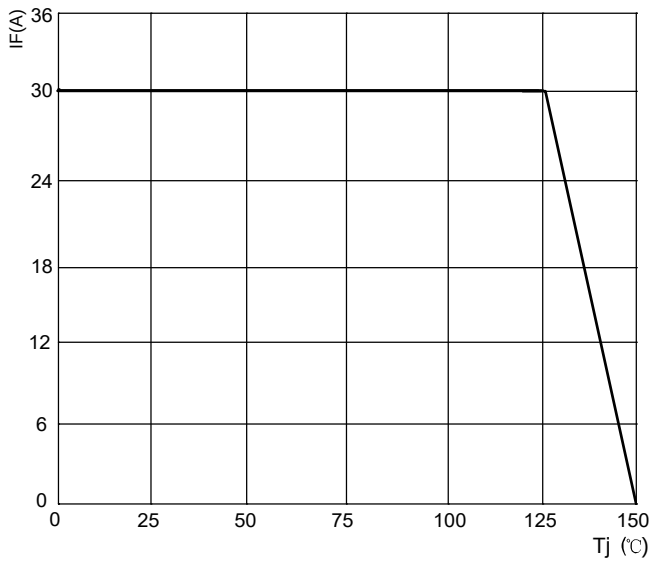


FIG.2: TYPICAL FORWARD CHARACTERISTICS

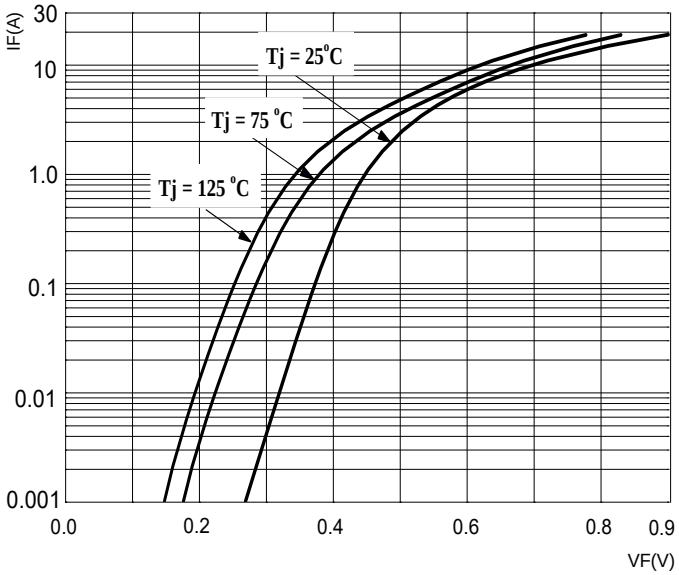


FIG.3: TOTAL CAPACITANCE DERATING CURVE

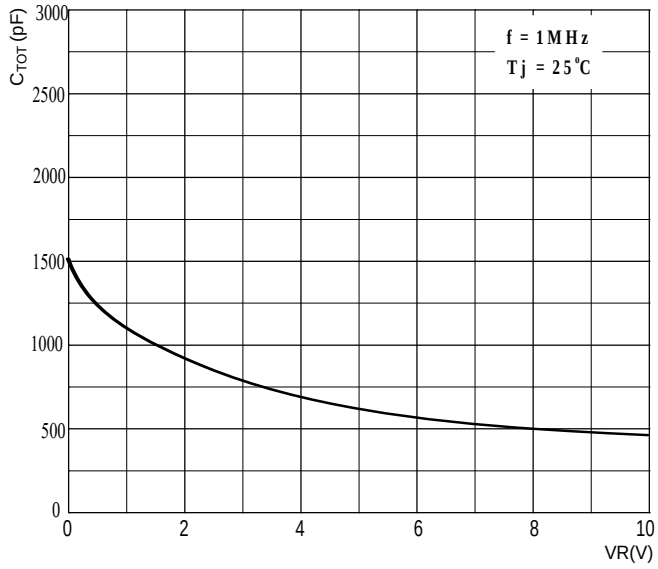
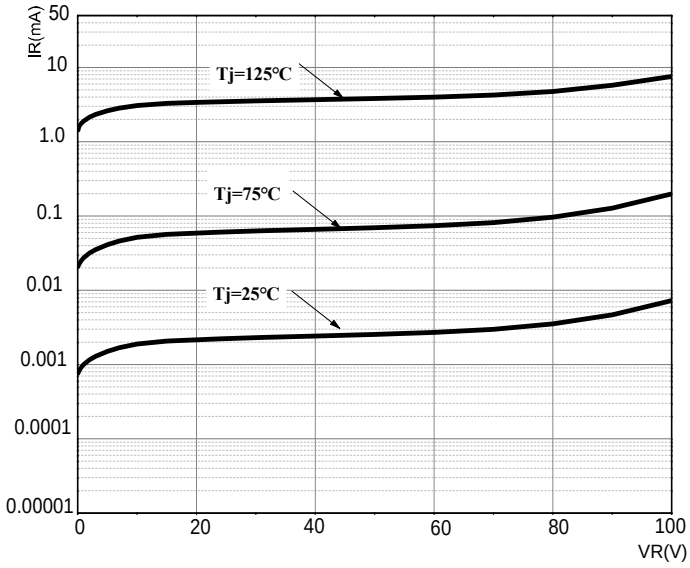
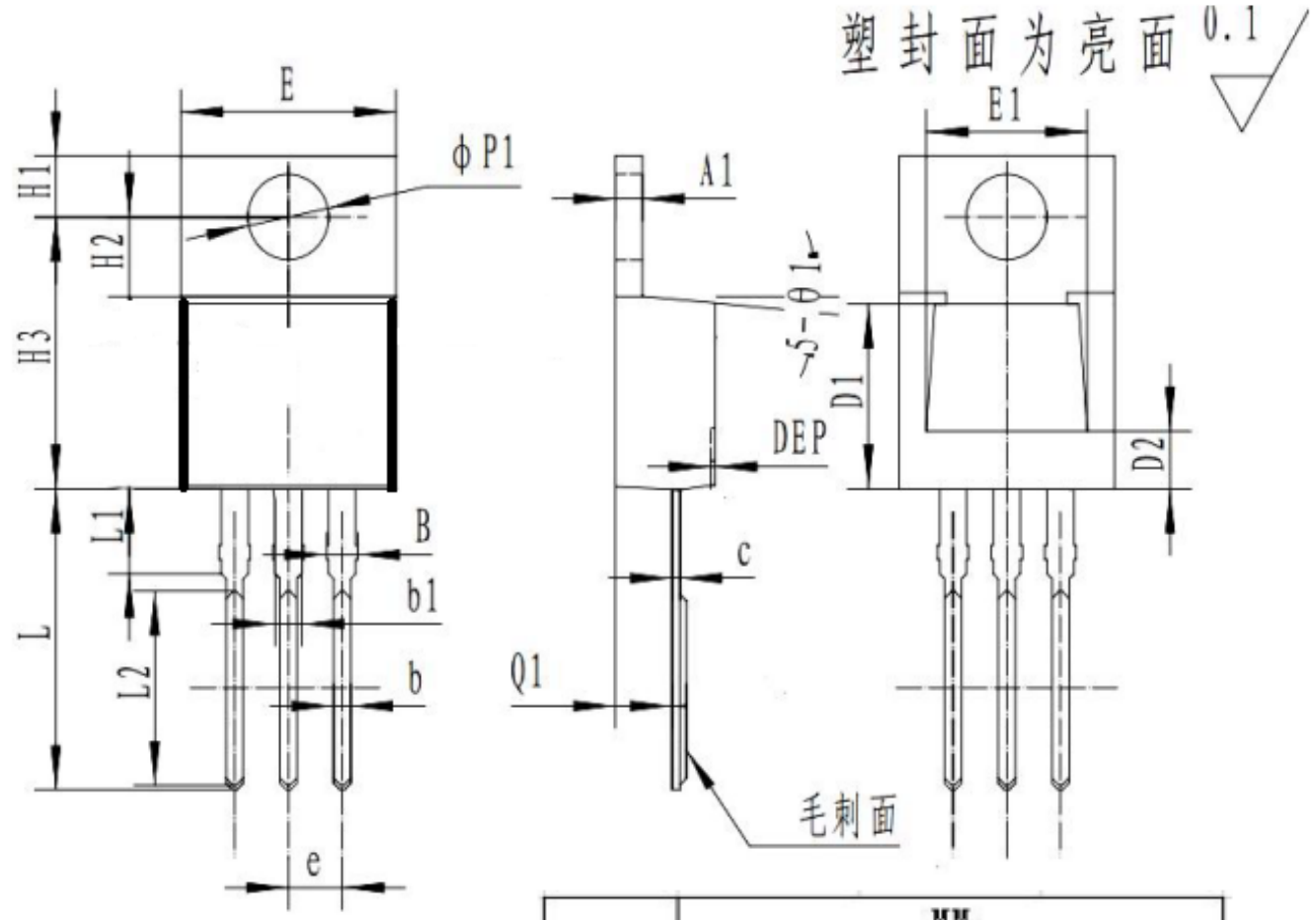
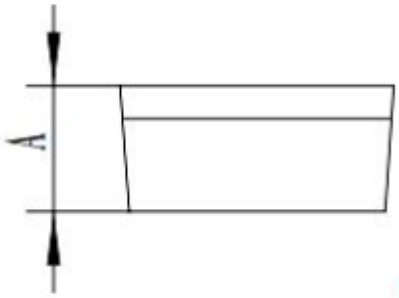


FIG.4: TYPICAL REVERSE CHARACTERISTICS







SYMBOL	MM		
	MIN	NOM	MAX
*A	4.60	4.70	4.80
A1	1.22	1.27	1.32
*b	0.76	0.81	0.86
b1	1.22	1.27	1.32
*B	1.27	1.37	1.45
*c	0.33	0.38	0.43
D1	7.60	7.75	7.90
D2	2.50	2.60	2.70
*E	10.00	10.10	10.20
E1	7.70	7.80	7.90
H1	2.64	2.74	2.84
H2	3.46	3.56	3.66
*H3	12.10	12.20	12.30
H4	1.90	2.00	2.10
*e	2.49	2.54	2.59
*L	13.45	3.85	13.85
L1	3.58	3.78	3.98
L2	8.66	8.76	8.86
*Q1	2.59	2.69	2.79
θ1	3°	5°	7°
ØP1	3.85	3.90	3.95
DEP	0.05	0.10	0.20
带*为检验尺寸			