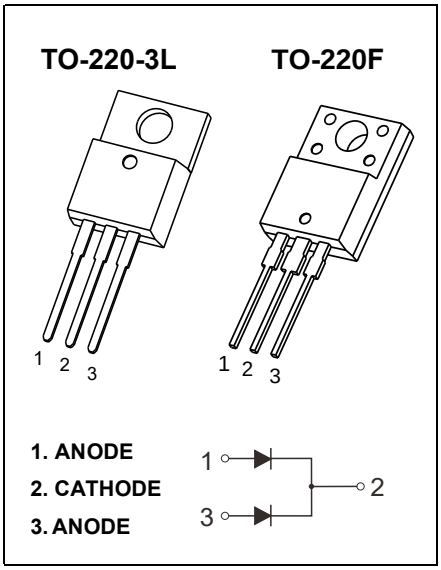
SBD3045LCTB、SBDF3045LCTB SCHOTTKY BARRIER RECTIFIER

MAIN CHARACTERISTICS

I_O	30（2×15）A
V_{RRM}	45 V
T_j	150 ℃
$V_{F(typ)}$	0.49V （@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
		3045LCTB	F3045LCTB	
V_{RRM}	Peak repetitive reverse voltage	45		V
V_{RWM}	Working peak reverse voltage			
V_R	DC blocking voltage			
$V_{R(RMS)}$	RMS reverse voltage	31.5		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=1mA		45			V
Reverse current	I_R	V_R=45V	Tj =25℃		100	500	uA
			Tj =125℃		25		mA
Forward voltage	V_F	I_F=10A	Tj =25℃		0.47		V
			Tj =125℃		0.40		V
		I_F=15A	Tj =25℃		0.52	0.65	V
			Tj =125℃		0.49		V

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

FIG.1: FORWARD CURRENT DERATING CURVE

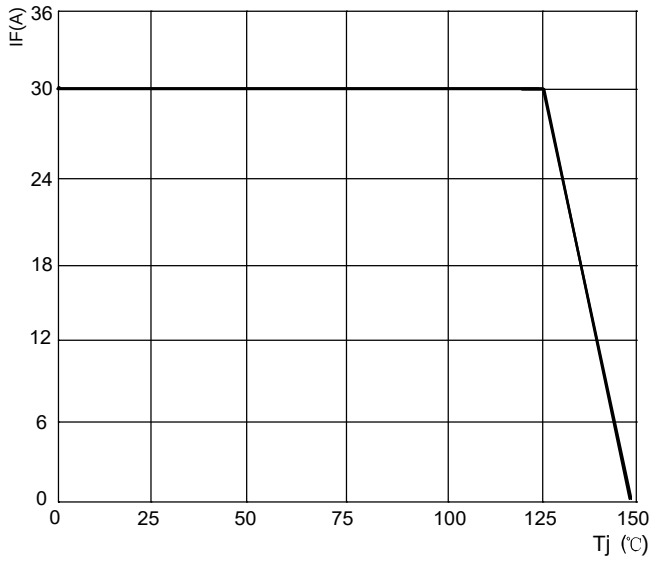


FIG.2: TYPICAL FORWARD CHARACTERISTICS

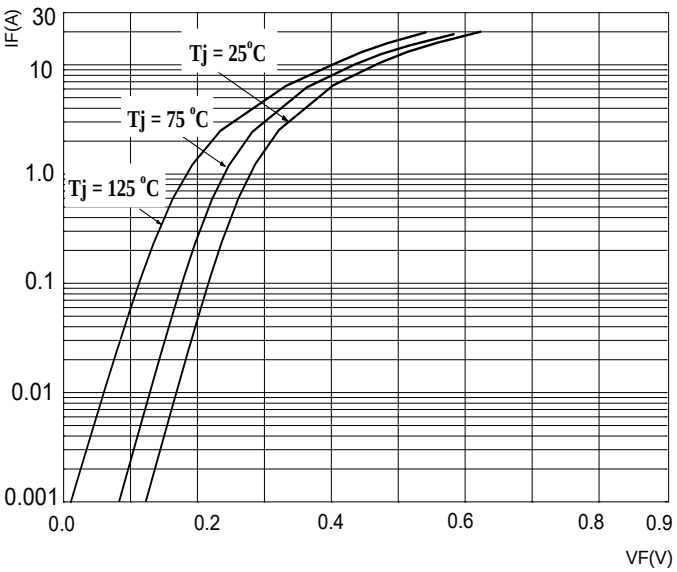


FIG.3: TOTAL CAPACITANCE DERATING CURVE

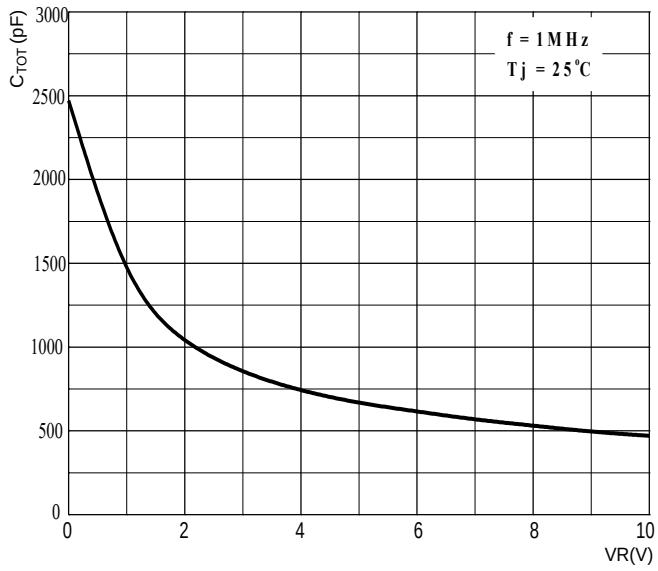
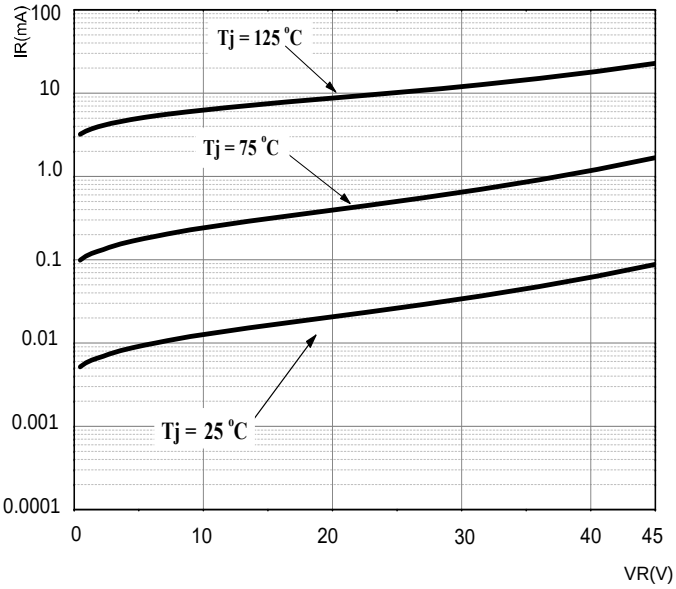
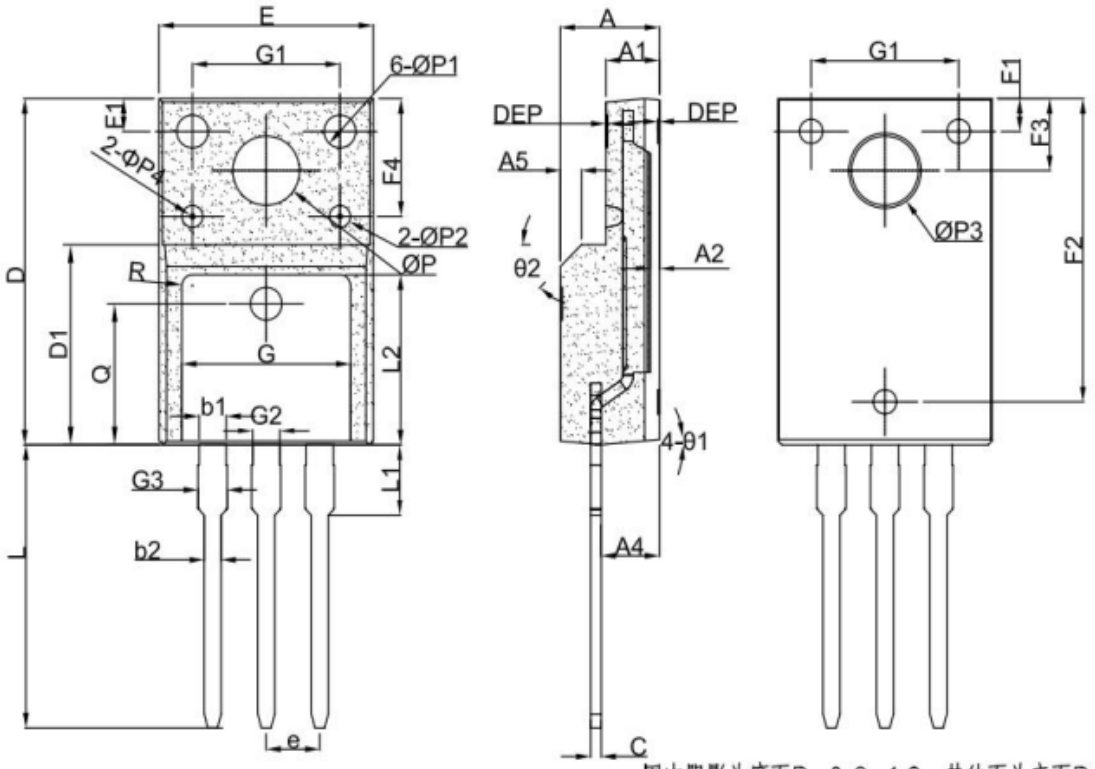
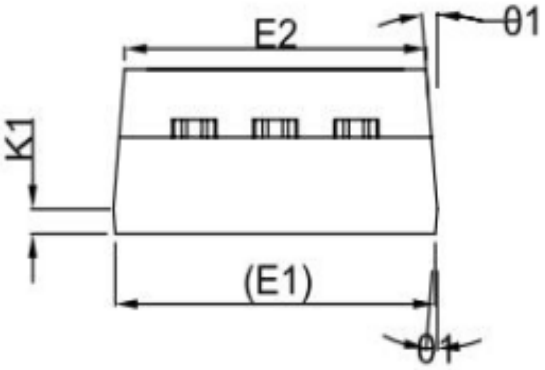


FIG.4: TYPICAL REVERSE CHARACTERISTICS





图中阴影为麻面Ra0.8-1.2，其他面为亮面Ra0.2-0.4



SYMBOL	mm		
	MIN	NOM	MAX
*A	4.50	4.70	4.90
*A1	2.34	2.54	2.74
*A2	0.38	0.43	0.48
*A4	2.66	2.76	2.86
A5		1.0REF	
b1	1.15	1.20	1.25
*b2	0.75	0.80	0.85
*c	0.45	0.50	0.60
*D	15.67	15.87	16.07
*D1	9.04	9.12	9.20
*e	2.49	2.54	2.59
*E	10.00	10.16	10.32
E1	9.94	10.04	10.14
E2	9.36	9.46	9.56
F1	1.40	1.50	1.60
F2	13.80	13.90	14.00
*F3	3.20	3.30	3.40
F4	5.30	5.40	5.50
G	7.80	8.00	8.20
G1	6.90	7.00	7.10
*G3	1.15	-	1.30
K1	0.65	0.70	0.75
*L	12.78	12.98	13.18
*L1	3.13	3.23	3.33
L2	7.40	7.50	7.60
Q		6.5REF	
R		0.5REF	
*ΦP	3.08	3.18	3.28
ΦP1	1.40	1.50	1.60
ΦP2	0.95	1.00	1.05
ΦP3	3.35	3.40	3.45
ΦP4	0.15	0.20	0.25
*θ1	3°	5°	7°
θ2	-	45°	-
DEP	0.05	0.1	0.15
需*为检验尺寸			