DESC0865E

8.0AMPS.SIC SCHOTTKY BARRIER DIODE

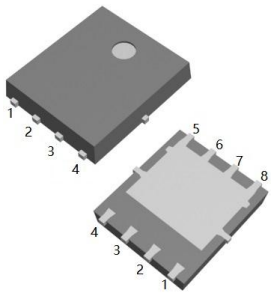
FEATURE

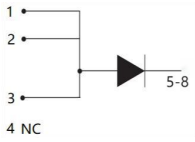
. 650V Schottky Diode
. Zero Reverse Recovery/Zero Forward Recovery
. High Efficiency Operation
. Extremely Fast Switching
. Temperature Independent Switching Behavior

TYPICAL APPLICATIONS

. Switch mode power supply
. Power factor correction Solar Invertor
. Solar inverter
. Uninterruptible power supply

DFN5*6





MAXIMUM RATINGS (T_C=25℃ unless otherwise noted)

Parameter	Symbol	DESC0865E	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	650	V
Maximum RMS Voltage	V_{RMS}	455	V
Maximum DC blocking Voltage	V_{DC}	650	V
Maximum Average Forward Rectified Current at T_C =150°C	$I_{F(AV)}$	8	A
Non-Repetitive Peak Forward Surge Current Tc=25°C,tp=8.3 ms, Half Sine Pulse	I_{FSM}	68	A
Total power disspation Tc=25°C	P_D	57.7	W
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 to +175	℃

ELECTRICAL CHARACTERISTICS (T_C=25℃ unless otherwise noted)

Parameter		Symbol	Typ	Max	Units
Forward voltage	I_F=8A, T_j=25℃	V_F	1.27	1.5	V
	I_F=8A, T_j=175℃		1.38	1.6	
Reverse current	V_R=650V, T_j=25°C	I_R	5	50	μA
	V_R=650V, T_j=175°C		25	200	
Total capacitive charge	V_R=650V,I_F=8A di/dt = 200A/μs, T_j = 25℃	Qc	22	——	nC
Total capacitance	V_R=0V, T_j=25℃, f=1MHZ	C	510	——	pF
	V_R=200V, T_j=25℃, f=1MHZ		52	——	
	V_R=400V, T_j=25℃, f=1MHZ		38	——	

THERMAL CHARACTERISTICS(T_C=25℃ unless otherwise noted)

Parameter	Symbol	Typ	Max	Units
Typical Thermal Resistance Junction to Case	$R_{(JC)}$	2.6	----	℃/W

RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CHARACTERISTICS

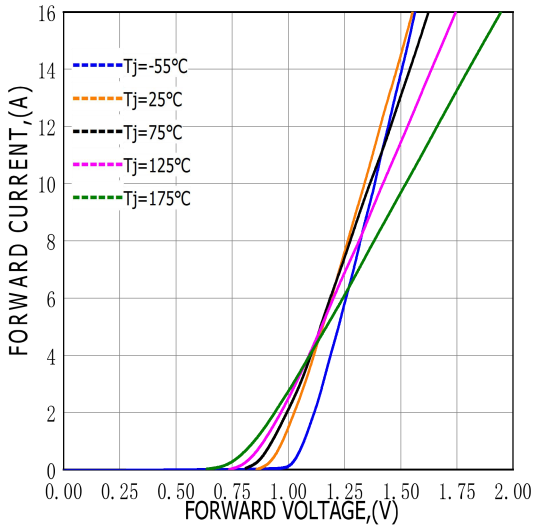


FIG.2-REVERSE CHARACTERISTICS

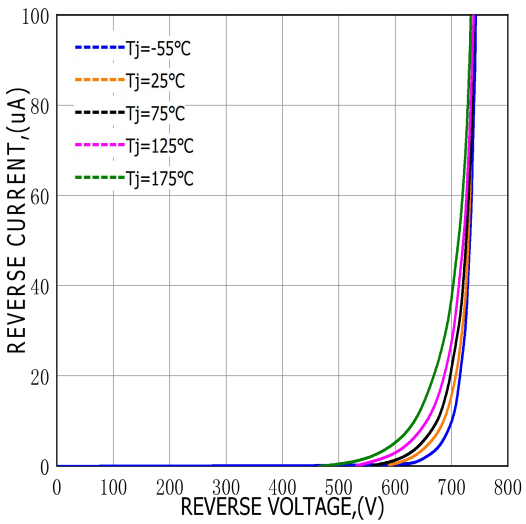


FIG.3-TOTAL CAPACITANCE CHARGE VS REVERSE VOLTAGE

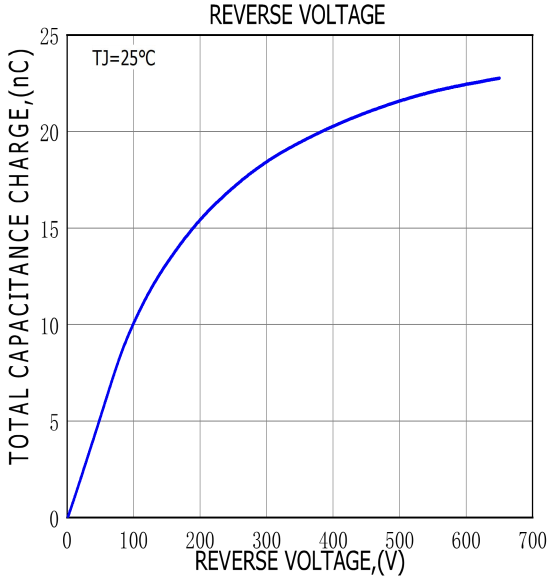
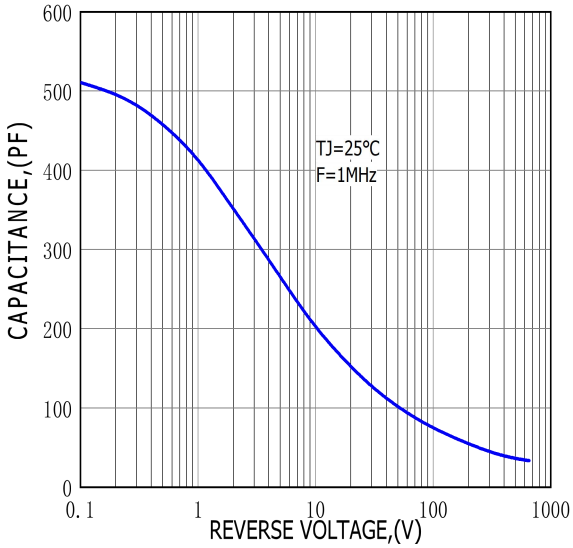
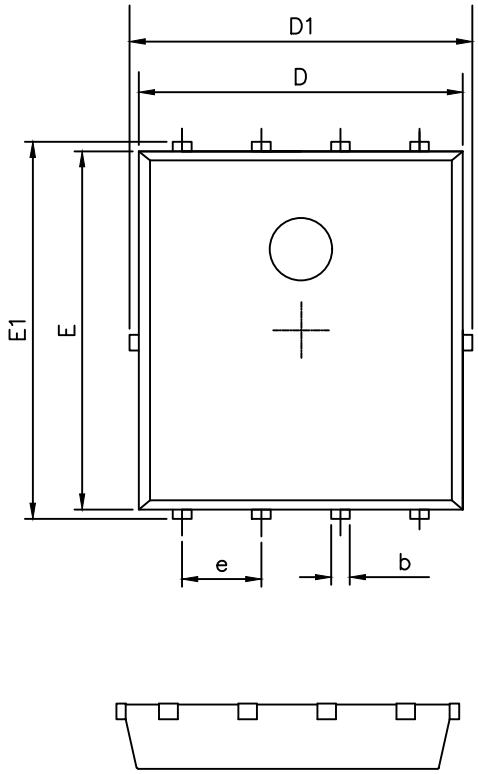


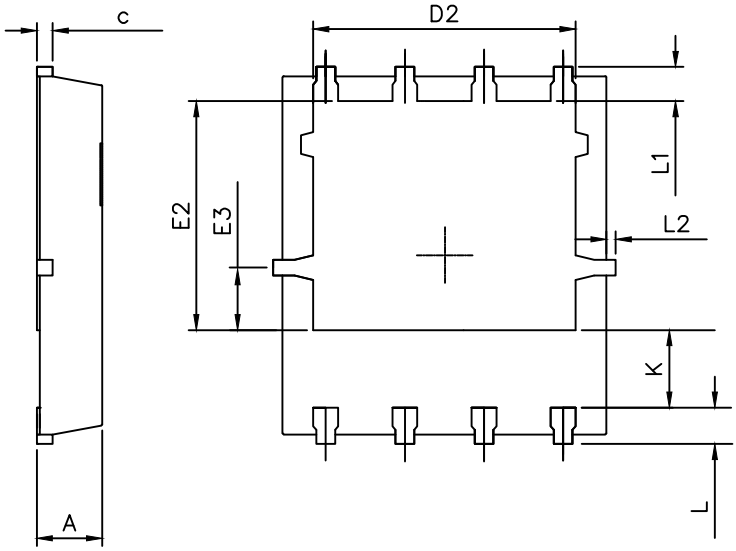
FIG.4-CAPACITANCE VS REVERSE VOLTAGE



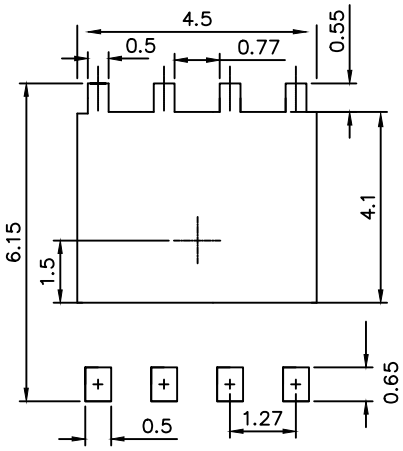
重庆平伟实业股份有限公司
CHONGQING PINGWEI ENTERPRISE CO.,LTD

DFN5x6 PACKAGE OUTLINE





RECOMMENDED LAND PATTERN



UNIT: mm

	MIN	NOM	MAX
A	0.90	1.00	1.10
b	0.25	0.35	0.50
c	0.10	0.20	0.30
D	4.80	5.00	5.30
D1	4.90	5.10	5.50
D2	3.92	4.02	4.20
E	5.65	5.75	5.85
E1	5.90	6.05	6.20
E2	3.325	3.525	3.775
E3	0.80	0.90	1.00
e		1.27	
L	0.40	0.55	0.70
L1		0.65	
L2	0.00		0.15
K	1.00	1.30	1.50