

## PESC1065GG

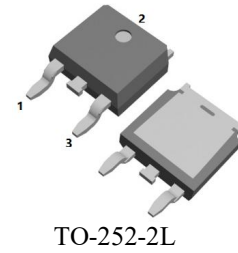
### 10.0AMPS.SIC SCHOTTKY BARRIER DIODE

#### 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



#### MAXIMUM RATINGS (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	PESC1065GG	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 <sub>C</sub> =150°C	$I_{F(AV)}$	10	A
Non-Repetitive Peak Forward Surge Current T <sub>c</sub> =25°C, t <sub>p</sub> =8.3 ms, Half Sine Pulse	$I_{FSM}$	86	A
Total power dissipation T <sub>c</sub> =25°C	$P_D$	71	W
Operation Junction Temperature and Storage Temperature	$T_J, T_{STG}$	-55 to +175	°C

#### ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	Typ	Max	Units	
Forward voltage	$V_F$	I <sub>F</sub> =10A, T <sub>j</sub> =25°C	1.27	1.5	V
		I <sub>F</sub> =10A, T <sub>j</sub> =175°C	1.38	1.6	
Reverse current	$I_R$	V <sub>R</sub> =650V, T <sub>j</sub> =25°C	6	50	μA
		V <sub>R</sub> =650V, T <sub>j</sub> =175°C	25	200	
Total capacitive charge	$Q_c$	25	---	nC	
Total capacitance	$C$	V <sub>R</sub> =0V, T <sub>j</sub> =25°C, f=1MHZ	640	---	pF
		V <sub>R</sub> =200V, T <sub>j</sub> =25°C, f=1MHZ	66	---	
		V <sub>R</sub> =400V, T <sub>j</sub> =25°C, f=1MHZ	48	---	

#### THERMAL CHARACTERISTICS(T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	Typ	Max	Units
Typical Thermal Resistance Junction to Case	$R_{(JC)}$	2.1	----	°C/W

RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CHARACTERISTICS

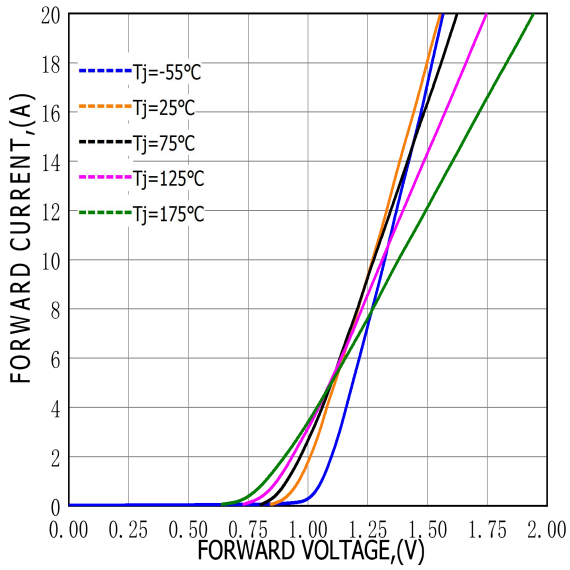


FIG.2-REVERSE CHARACTERISTICS

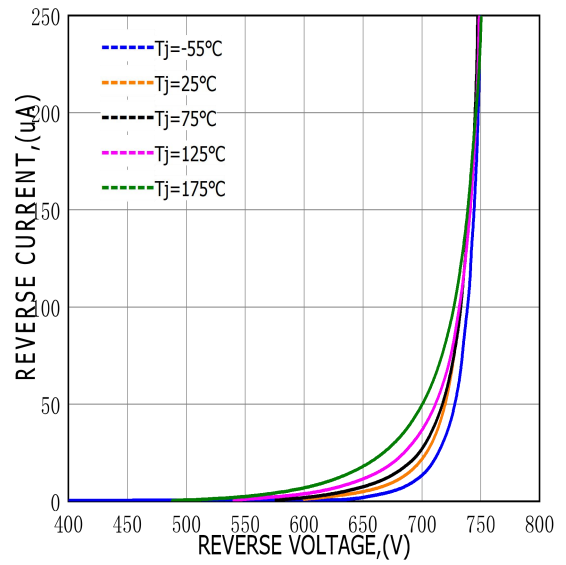


FIG.3-TOTAL CAPACITANCE CHARGE VS REVERSE VOLTAGE

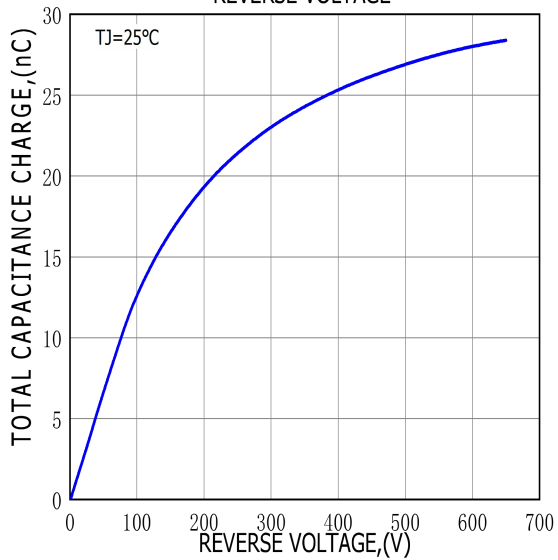
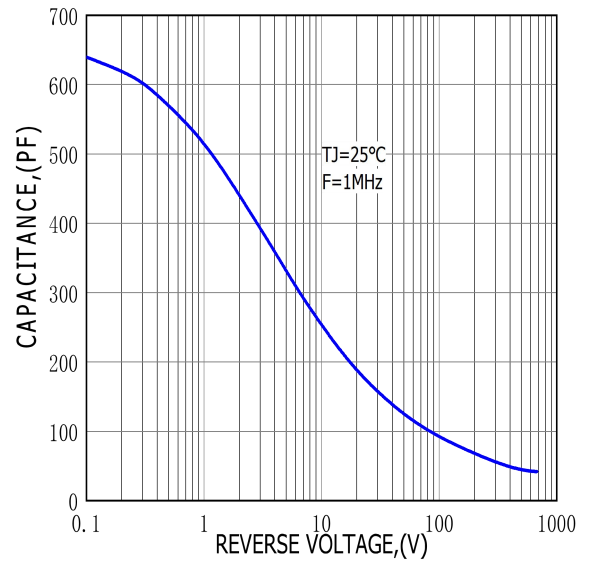
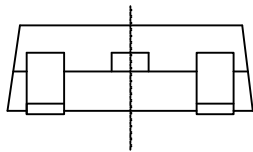
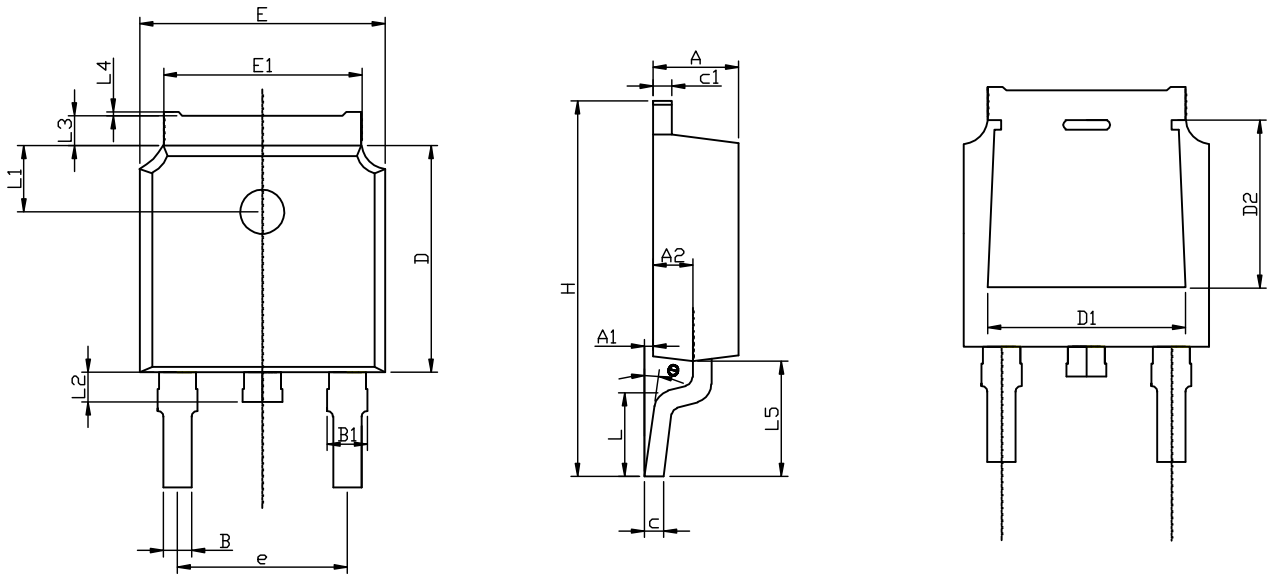


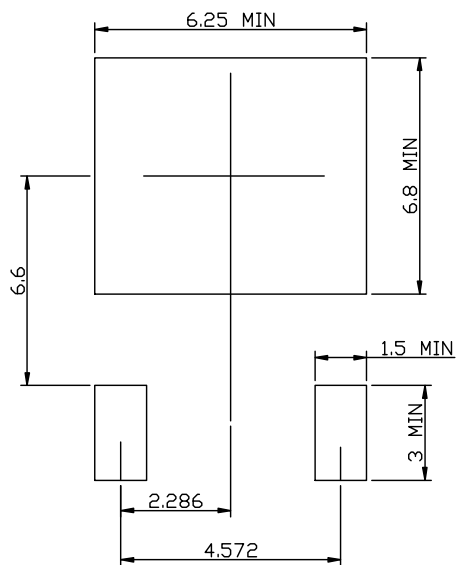
FIG.4-CAPACITANCE VS REVERSE VOLTAGE



# TO-252-2L PACKAGE OUTLINE



## RECOMMENDED LAND PATTERN



	MIN	NOM	MAX
A	2.15	2.30	2.45
A1	0.05	0.10	0.20
A2	0.91	1.07	1.22
B	0.66	0.76	0.86
B1	0.93	1.08	1.23
C	0.40	0.50	0.60
C1	0.40	0.50	0.60
D	5.95	6.10	6.25
D1	-	4.8REF	-
D2	-	3.8REF	-
E	6.45	6.60	6.75
E1	5.12	5.32	5.52
L		1.65	
L1	1.58	1.78	1.98
L2	0.60	0.80	1.00
L3	0.70	0.85	1.00
L4	0.00	0.05	0.20
L5	2.80	3.10	3.40
H	9.80	10.10	10.40
Θ	0°		8°
e		4.572REF	

UNIT: mm