TPCTS05S40
Schottky barrier diode

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Features

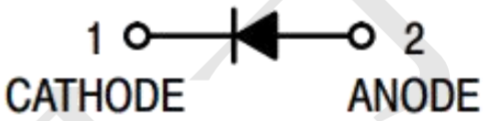
- High Continuous Forward Current
- Low Reverse Current
- Reverse Voltage and Current Protection
- Very High Switching Speed



DFN1608-2L

Applications

- Surface mount schottky barrier rectifier
- Buck and Boost dc−dc Converters
- Very Low Forward Voltage Drop
- Clamping & Protection



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Reverse Voltage	VR	40	V
Forward Current (DC)	IF	1	A
Forward Surge Current (60 Hz @ 1 cycle)	IFSM	10	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Total Power Dissipation (tpy)	PD	80	mW
Operating Junction Temperature Range	TJ	−55 to +125	°C
Storage Temperature Range	TSTG	−55 to +150	°C
Mounted onto a 4 in square FR−4 board 10 mm sq. 1 oz. Cu 0.06” thick single sided. Operating to steady state.			

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	V(BR)R	40	--	--	V	IR=100μA
Forward Voltage	VF	--	--	0.50	V	IF = 0.5A
		--	--	0.60	V	IF = 1A
Reverse Leakage	IR	--	--	15	uA	VR = 40 V

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Typical Electrical Characteristic Curves

FIG1：Io-TL Curve

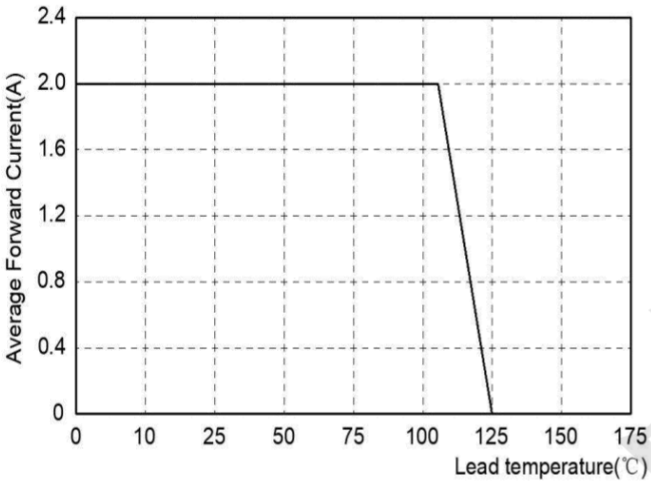


FIG2：Surge Forward Current Capability

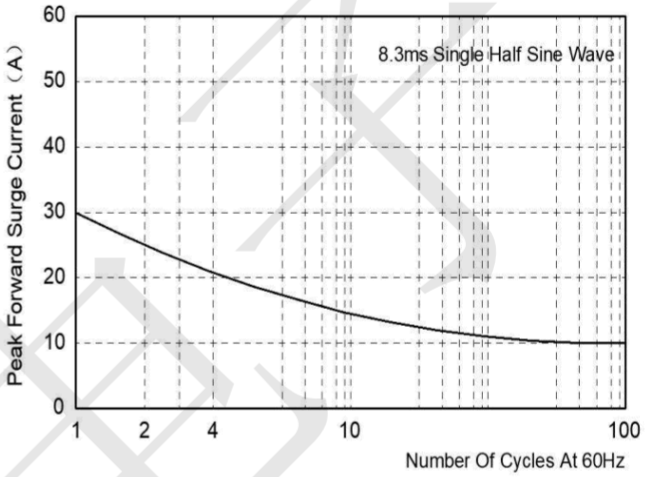


FIG3：Typcal Reverse Characteristics

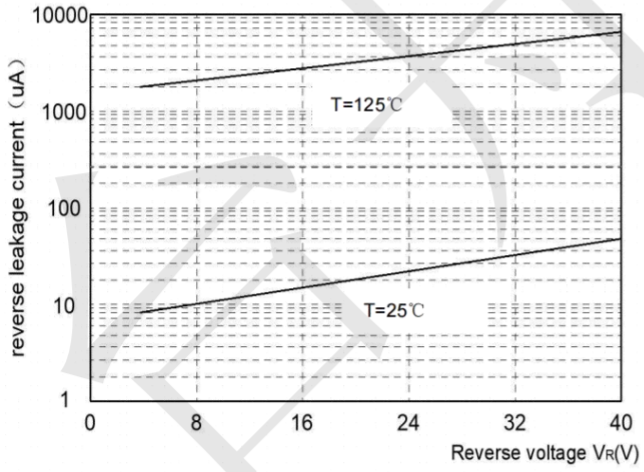
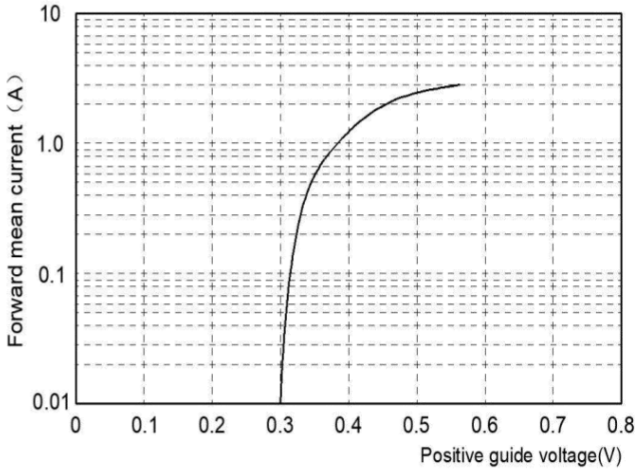
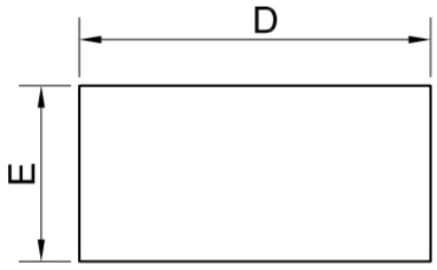


FIG4: Typcal Forward Characteristics

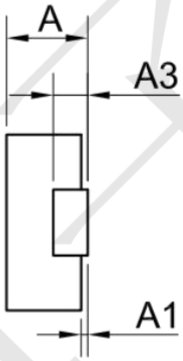


Outline Drawing Package information

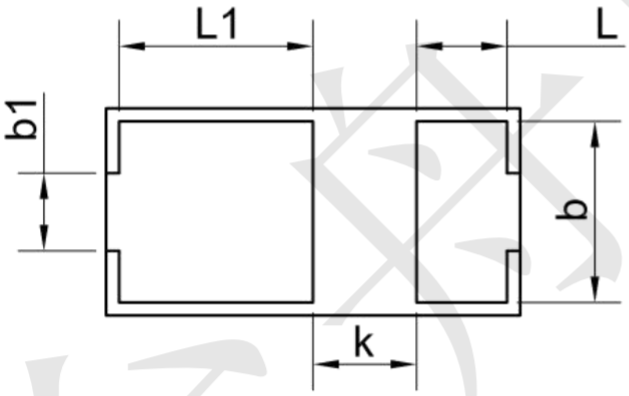
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TOP VIEW



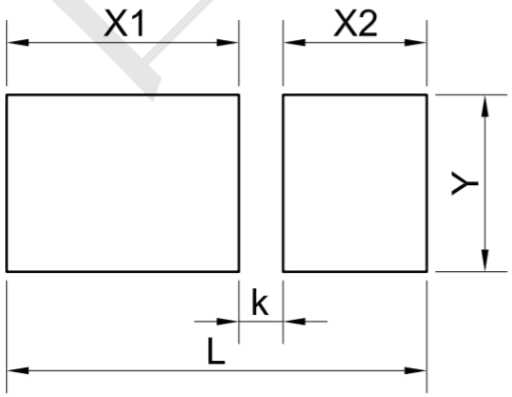
SIDE VIEW



BOTTOM VIEW

DFN1608-2			
DIM	MIN	NOR	MAX
A	0.32	0.37	0.42
A1	0.01	0.03	0.05
b	0.65	0.70	0.75
b1	0.25	0.30	0.35
D	1.55	1.60	1.65
E	0.75	0.80	0.85
k	0.35	0.40	0.45
L	0.30	0.35	0.40
L1	0.70	0.75	0.80
A3	0.127REF.		
All Dimensions in mm			

SOLDERING FOOTPRINT



DFN1608-2	
DIM	(mm)
X1	1.05
X2	0.65
L	1.90
Y	0.80
K	0.20