

# SD1040

Plastic-Encapsulate Schottky Barrier Diode

ROHS

## Features

- ◆ High Reliability
- ◆ Small Surface Mounting Type

## Mechanical Data

- ◆ Case: DFN1006
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Polarity: Color Band Denotes Cathode End
- ◆ Quantity Per Reel : 10,000pcs
- ◆ Device Marking: 14

## Mechanical Characteristics

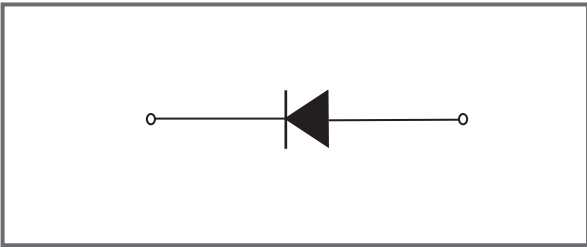
Parameter	Symbol	Value	Units
Repetitive Peak Reverse Voltage	VRRM	40	V
Reverse Voltage	VR	40	V
Positive Average Rectified Current	IF(AV)	1.0	A
Non-Repetitive Peak Forward Surge Current @t=8.3ms	IFSM	5.0	A
Power Dissipation	PD	0.15	W
Thermal Resistance Junction to Ambient	RθJA	667	°C/W
Junction Temperature Range	TJ	-40~+125	°C
Storage Temperature Range	Tstg	-55~+125	°C



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## Functional Diagram



Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	$V_R$	$I_R=1mA$	40	--	--	V
Forward Voltage	$V_F^{(1)}$	$I_F=0.1A$	--	0.33	0.38	V
		$I_F=0.2A$	--	0.37	0.40	
		$I_F=0.5A$	--	0.42	0.49	
		$I_F=0.7A$	--	0.47	0.55	
		$I_F=1.0A$	--	0.53	0.61	
Reverse Current	$I_R^{(2)}$	$V_R=40V$	--	9.0	20.0	$\mu A$

Notes:  
(1)Pulse test  $t_p=380\mu s, \delta<2\%$ ; (2)Pulse test  $t_p=5ms, \delta<2\%$ .

## Electrical Characteristics Curves

Fig.1 Forward Characteristics

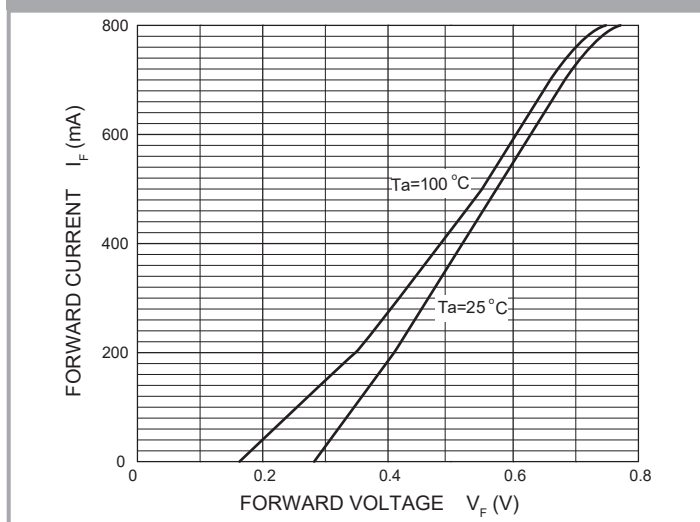


Fig. 2 Reverse Characteristics

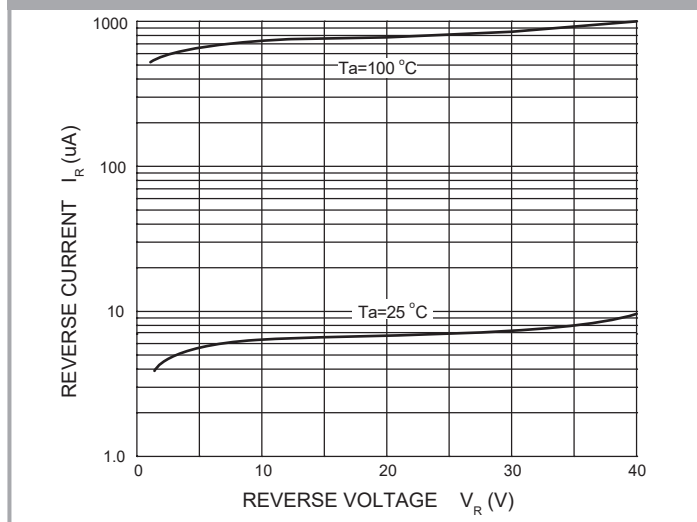
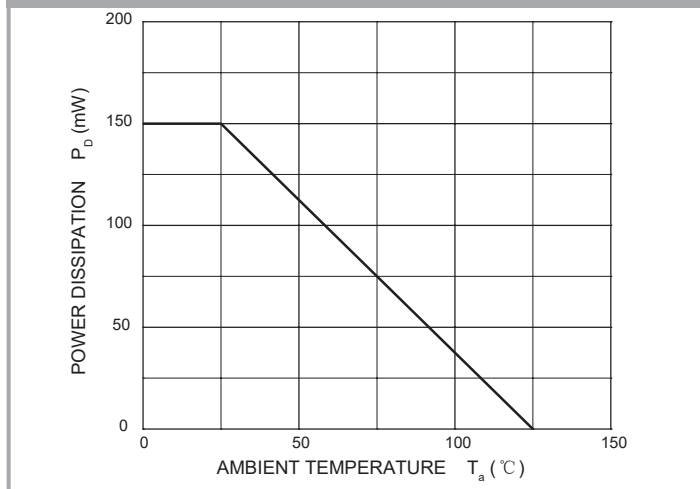
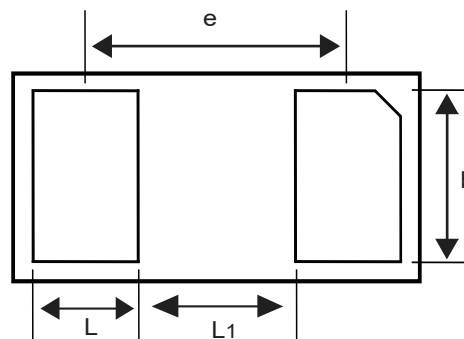
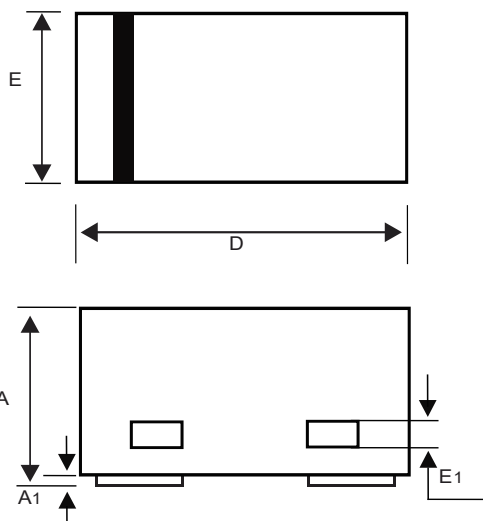


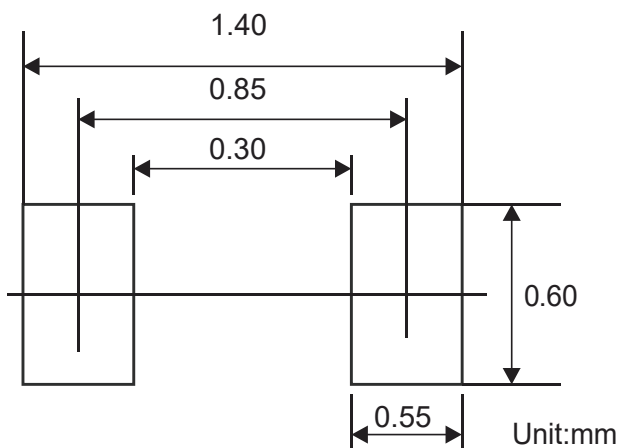
Fig. 3 Power Derating Curve



## DFN1006 Package Outline & Dimensions



Suggested PAD Layout



Symbol	Millimeters		
	Min.	Nom.	Max.
A	0.450	0.500	0.550
A1	0	0.020	0.050
E1	0.013	0.063	0.113
D	0.900	1.000	1.100
E	0.500	0.600	0.700
e	0.65BSC		
L	0.150	0.250	3.50
b	0.400	0.500	0.600
L1	0.300	0.400	0.500

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