

BAT54P

SCHOTTKY BARRIER DIODE

Features

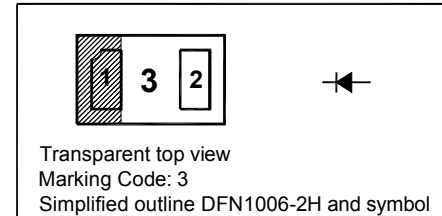
- Low forward voltage

Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Peak Forward Surge Current ($t_p = 10$ ms)	I_{FSM}	600	mA
Power Dissipation	P_D	250	mW
Thermal Resistance from Junction Ambient	R_{thJA}	500	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min	Max.	Unit
Forward Voltage at $I_F = 0.1$ mA at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 30$ mA at $I_F = 100$ mA	V_F	- - - - -	0.24 0.32 0.4 0.5 0.8	V
Reverse Breakdown Voltage at $I_R = 10$ μA	$V_{(BR)R}$	30	-	V
Reverse Current at $V_R = 25$ V	I_R	-	2	μA
Total Capacitance at $V_R = 1$ V, $f = 1$ MHz	C_T	-	10	pF
Reverse Recovery Time at $I_F = 10$ mA, $V_R = 6$ V, $I_R = 10$ mA, $R_L = 100$ Ω	t_{rr}	-	6	ns

TOP DYNAMIC



Dated: 18/05/2015 Rev: 02

BAT54P

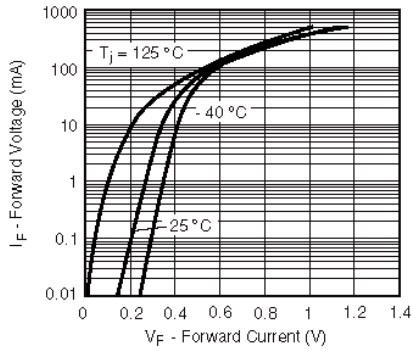


Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

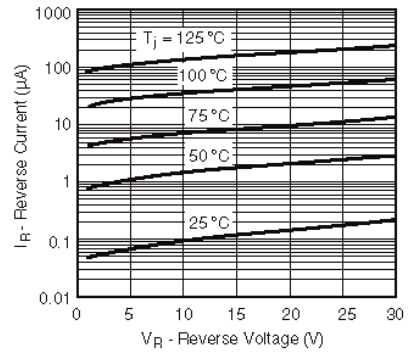


Figure 3. Typical Variation of Reverse Current at Various Temperatures

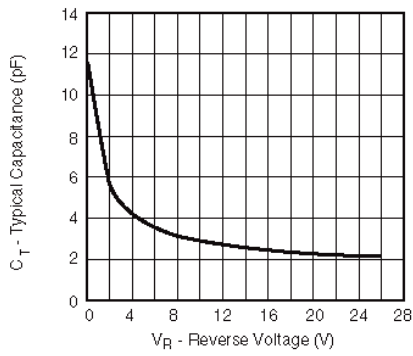


Figure 2. Typical Capacitance °C vs. Reverse Applied Voltage V_D

TOP DYNAMIC



ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 01141012
 OHSAS 18001 : 2007 Certificate No. 05191506008
 IECQ QC 080000 Certificate No. E2018000714002

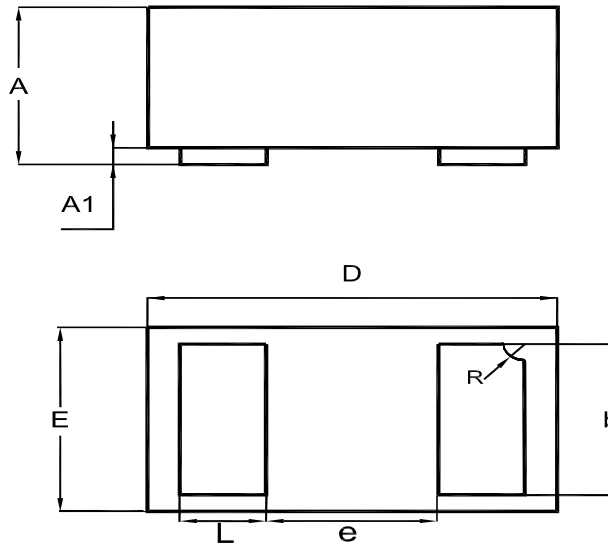
Dated: 18/05/2015 Rev: 02

BAT54P

PACKAGE OUTLINE

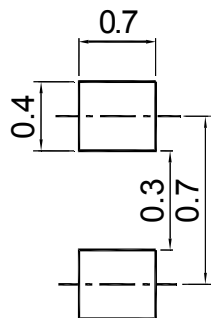
Plastic surface mounted package

DFN1006-2H



UNIT	A	A1	b	D	E	e	L	R
mm	0.51 0.46	0.05 0	0.55 0.45	1.05 0.95	0.65 0.55	0.4	0.3 0.2	0.15 0.05

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1006-2H	8	4 ± 0.1	0.157 ± 0.004	178	7	5,000

TOP DYNAMIC



ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 60114012
 OHSAS 18001 : 2007 Certificate No. 05191506008
 IECQ QC 080000 Certificate No. E241800074402

Dated: 18/05/2015 Rev: 02