



Micro Commercial Components

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**Features**

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- For general purpose applications
- These diodes features very low-turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- Marking : Cathode band and type number
- Moisture Sensitivity: Level 1 per J-STD-020C

**Maximum Ratings**

- Operating Temperature: -55°C to +125°C
- Storage Temperature: 55°C to +150°C
- Maximum Thermal Resistance; 300°C/W Junction To Ambient

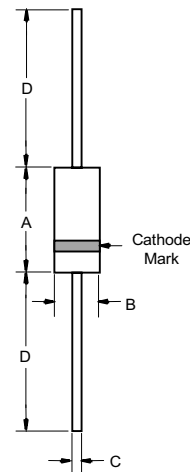
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Repetitive Peak Reverse Voltage	$V_{RRM}$	100V	
Forward continuous Current	$I_F$	150mA <sup>2)</sup>	$T_A = 25^\circ C$
Power Dissipation	$P_{TOT}$	150mW <sup>2)</sup>	$T_A = 65^\circ C$
Junction Temperature	$T_J$	125°C	
Peak Forward Surge Current	$I_{FSM}$	750mA <sup>2)</sup>	$T_p < 10ms,$ $T_A = 25^\circ C$
Forward voltage pulse Test $t_p < 300\mu S,$ at $V_R = 10V, T_J = 60^\circ C,$ $\delta < 2\%$	$V_F$	0.25V 0.45V 1V	$I_F = 0.1mA$ $I_F = 10mA$ $I_F = 250mA$
Leakage current pulse test $t_p < 300\mu S,$ $\delta < 2\%$	$I_R$	0.5µA 0.8µA 2µA 5µA	$V_R = 1.5V$ $V_R = 10V$ $V_R = 50V$ $V_R = 75V$
Typical Junction Capacitance	$C_J$	6pF	Measured at 1.0MHz, $V_R = 1V$
Reverse Recovery Time	$T_{rr}$	5nS	$I_F = 10mA$ $V_R = 6V$ $R_L = 100\Omega$

**BAT46**

**Small Signal Schottky Diode**

**DO-35**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.  
 2. Valid provided that electrodes are kept at ambient temperature

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Figure 1. Forward current versus forward voltage at different temperatures (typical values)

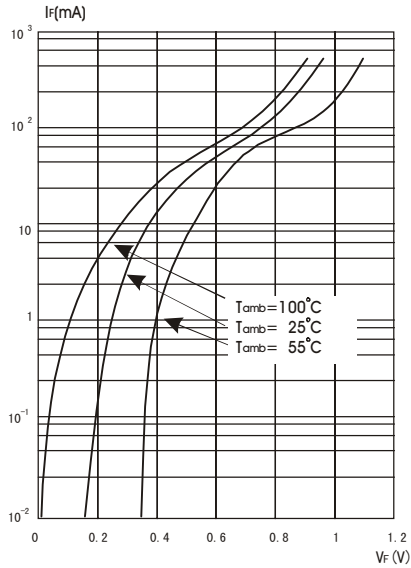


Figure 2. Forward current versus forward voltage (typical values)

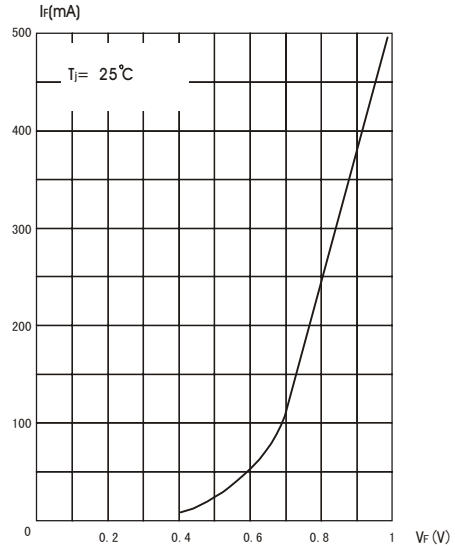
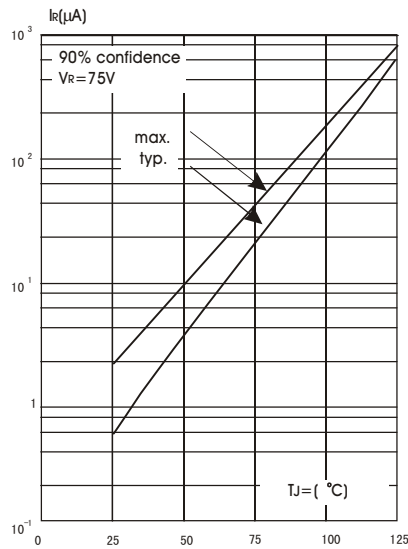


Figure 3. Reverse current versus junction temperature (typical values)



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Figure 4. Reverse current versus continuous Reverse voltage

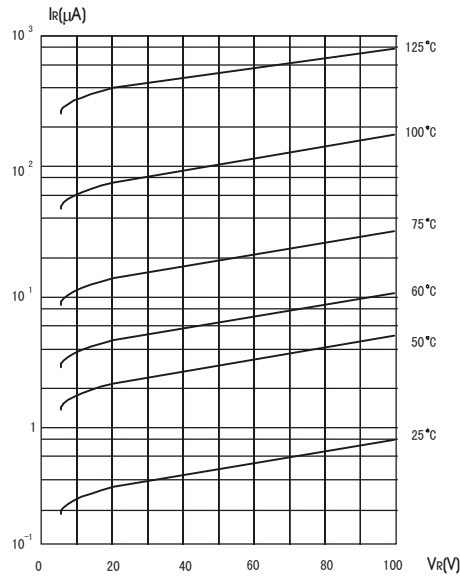
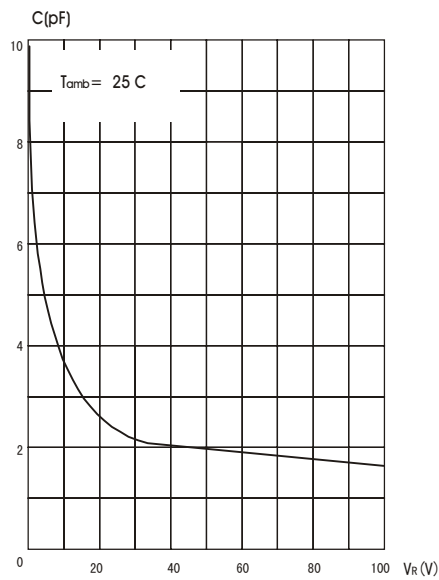


Figure 5. Capacitance C versus reverse applied voltage  $V_R$  (typical values)





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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel; 10Kpcs/Reel
(Part Number)-AP	Ammo Packing;5Kpcs/AmmoBox
(Part Number)-BP	Bulk;500pcs/Bag

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