

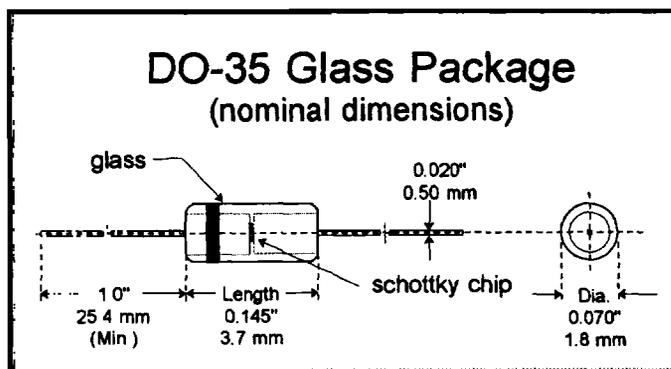
DO-35 Glass**BAT42****Schottky Diode**

Applications

Guard ring protected schottky barrier. Low forward drop. Excellent protection for MOS devices. Ideal replacement for germanium diodes. Used in small fast motor applications such as CD ROMs and hard disk drives. Efficient portable system battery isolator.

Features

- Six Sigma quality
- Humidity proof glass
- Thermally matched system
- No thermal fatigue
- High surge capability
- Sigma Bond™ plated contacts
- 100% guaranteed solderability
- (DO-213AA) SMD Mini MELF available



Absolute Maximum Ratings	Symbol	Value	Unit	
Peak Inverse Voltage @ 100 μ A (pulsed) 300 μ S @ 2%	PIV	30 (Min.)	Volts	
Power Dissipation at $T_L = 65^\circ\text{C}$, $L=3/8"$ from body	P_{tot}	200	mW	
Average Forward Rectified Current at $T_L = 25^\circ\text{C}$	I_{AV}	200	mAmps	
Operating Temperature Range	T_{Op}	-65 to 125	$^\circ\text{C}$	
Storage Temperature Range	T_{ST}	-65 to 150	$^\circ\text{C}$	
Repetitive peak forward current ($t_{pmax} = 1\text{sec}$), $T_L = 25^\circ\text{C}$	I_{FRM}	500	mAmps	
Single cycle Surge Current ($t_p = 10\text{ msec.}$), $T_L = 25^\circ\text{C}$	I_{FSM}	4.0	Amps	
Electrical Characteristics @ 25 $^\circ\text{C}$	Symbol	Typ.	Max.	Unit
Forward Voltage Drop @ $I_F = 10\text{ mA}$	$V_F^{(2)}$		0.40	Volt
Forward Voltage Drop @ $I_F = 50\text{ mA}$	$V_F^{(2)}$		0.65	Volt
Forward Voltage Drop @ $I_F = 200\text{ mA}$	$V_F^{(2)}$		1.0	Volt
Reverse Leakage Current @ $V_R = 25\text{ V}$	$I_R^{(2)}$		0.5	μA
Reverse Leakage Current @ $V_R = 25\text{ V}$	$I_R^{(2)}$ @ 100 $^\circ\text{C}$		100	μA
Capacitance @ $V_R = 1\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	7.0		pF
Reverse Recovery Time (note 1)	$t_{rr}^{(1)}$		5.0	nSecs

Note 1): $I_F = I_R = 10\text{ mA}$, $R_L = 100\text{ Ohms}$, Recover to 1mA.

Note 2): Pulse tested at $t_p = 300\mu\text{Secs}$ at a 2% duty cycle.

Available in an SMD as a DO-213AA glass MELF version (LL42).



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