

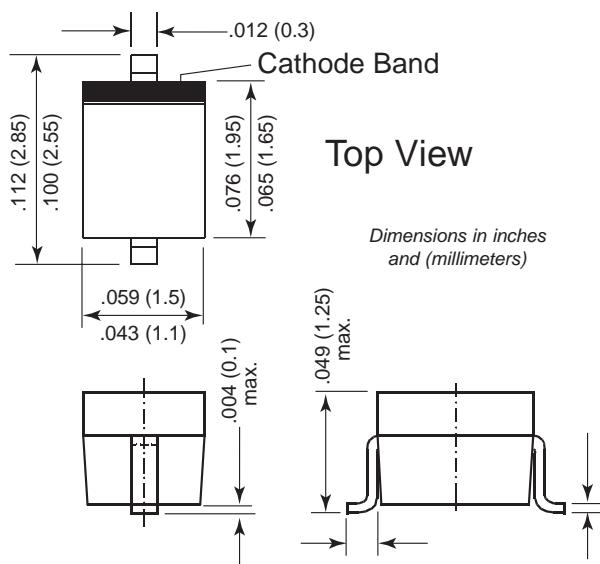
RoHS Compliant Product

A suffix of "-C" specifies halogen &amp; lead-free

SOD-323(SC-76)


**FEATURES**

- Very small plastic SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 100 V
- Repetitive peak reverse voltage: max. 100 V
- Repetitive peak forward current: max. 500 mA.

**MARKING: A6**

**Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C**

Parameter	Symbol	Limits			Unit
DC reverse voltage	V <sub>R</sub>	100			V
Forward current	I <sub>F</sub>	250			mA
Total Device Dissipation	P <sub>D</sub>	400			mW
Junction and storage temperature	T <sub>j</sub> , T <sub>stg</sub>	-65+150			°C

**Electrical Ratings @T<sub>A</sub>=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	V <sub>(BR)R</sub>	100				I <sub>R</sub> =100uA
Forward voltage	V <sub>F1</sub>			715	mV	I <sub>F</sub> =1mA
	V <sub>F2</sub>			855		I <sub>F</sub> =10mA
	V <sub>F3</sub>			1000		I <sub>F</sub> =50mA
	V <sub>F4</sub>			1250		I <sub>F</sub> =150mA
Reverse recovery Time	t <sub>rr</sub>			4	ns	I <sub>F</sub> =I <sub>R</sub> =10mA, R <sub>L</sub> =100Ω
Reverse current	I <sub>R1</sub>			0.03	μ A	V <sub>R</sub> =25V
	I <sub>R2</sub>			1		V <sub>R</sub> =75V
Forward recovery voltage	V <sub>FR</sub>			1.75	V	I <sub>F</sub> =10mA, t <sub>r</sub> = 20ns
Diode Capacitance	C <sub>D</sub>			1.5	pF	V <sub>R</sub> =0V, f=1MHZ

## Typical Characteristics

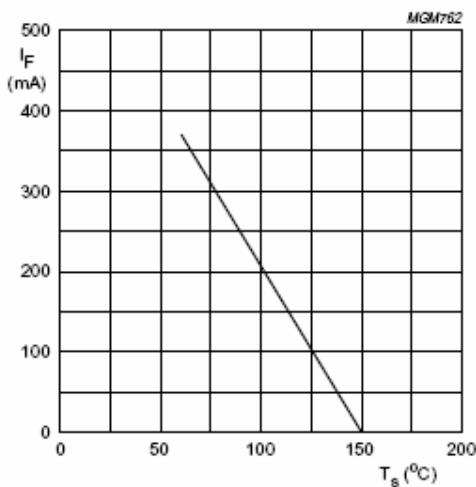


Fig.2 Maximum permissible continuous forward current as a function of soldering point temperature.

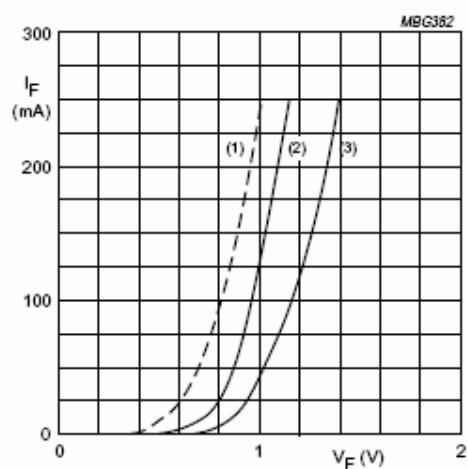
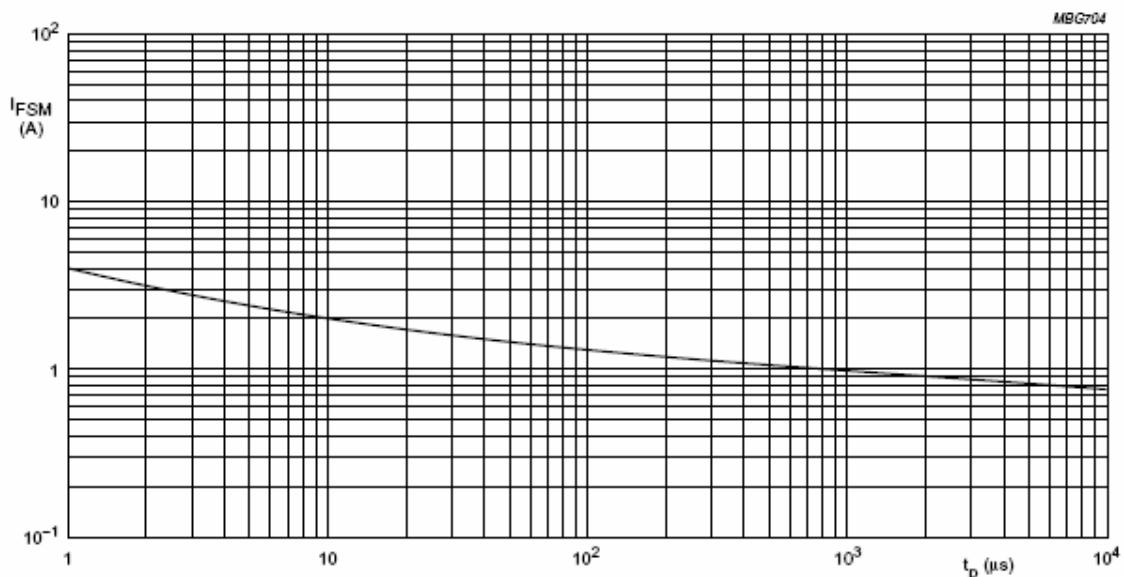


Fig.3 Forward current as a function of forward voltage.



Based on square wave currents.  
T<sub>j</sub> = 25 °C prior to surge.

Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

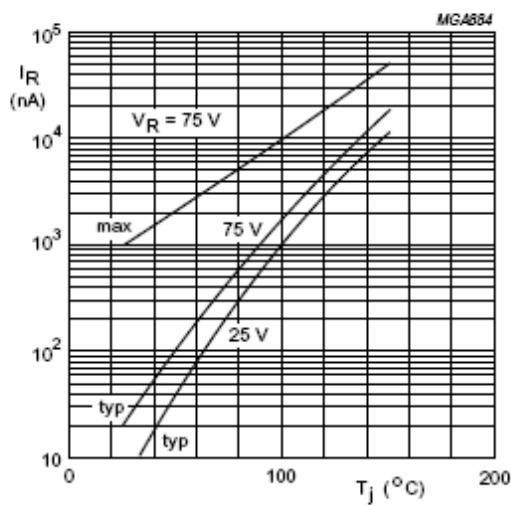
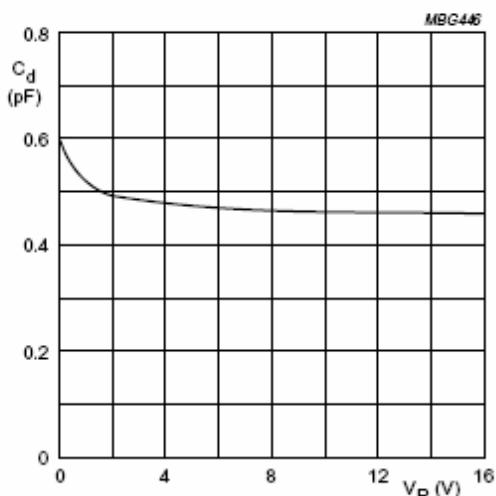


Fig.5 Reverse current as a function of junction temperature.



$f = 1\text{ MHz}; T_j = 25\text{ }^{\circ}\text{C}.$

Fig.6 Diode capacitance as a function of reverse voltage; typical values.