SWITCHING DIODES

PRODUCT SUMMARY

SOD-523 Plastic-Encapsulate Diodes

SOD-523

FEATURES

Small surface mounting type
High switching speed

Pb-free; RoHS-compliant

MARKING: 61

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Single Diode @T_A=25 °C

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	75	V
Mean rectifying current	I_O	250	mA
Peak forward surge current	I_{FSM}	0.5	A
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65~+150	℃

ELECTRICAL RATINGS @T_A=25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F			0.715 0.855 1 1.25	V	I_F=1mA I_F=10mA I_F=50mA I_F=150mA
Reverse current	I_R			0.03 1	μA	V_R=25V V_R=75V
Capacitance between terminals	C_T			1	pF	V_R=0, f=1MHZ
Reverse recovery time	t_{rr}			4	ns	I_F=10mA, R_L=100Ω

TYPICAL CHARACTERISTICS

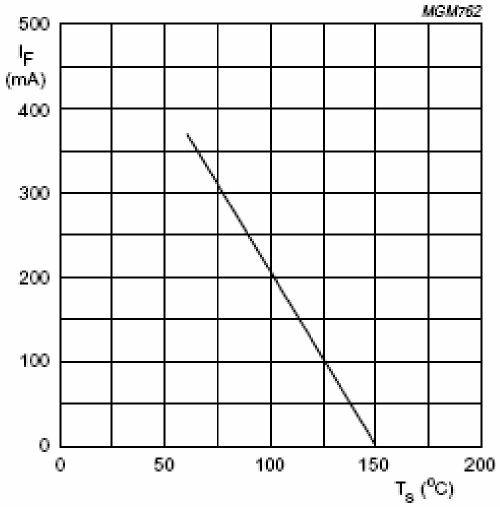
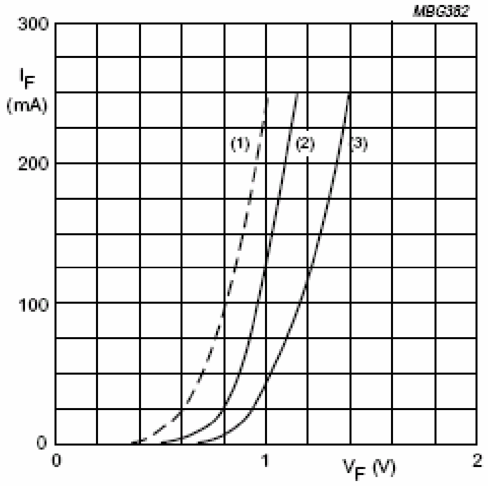
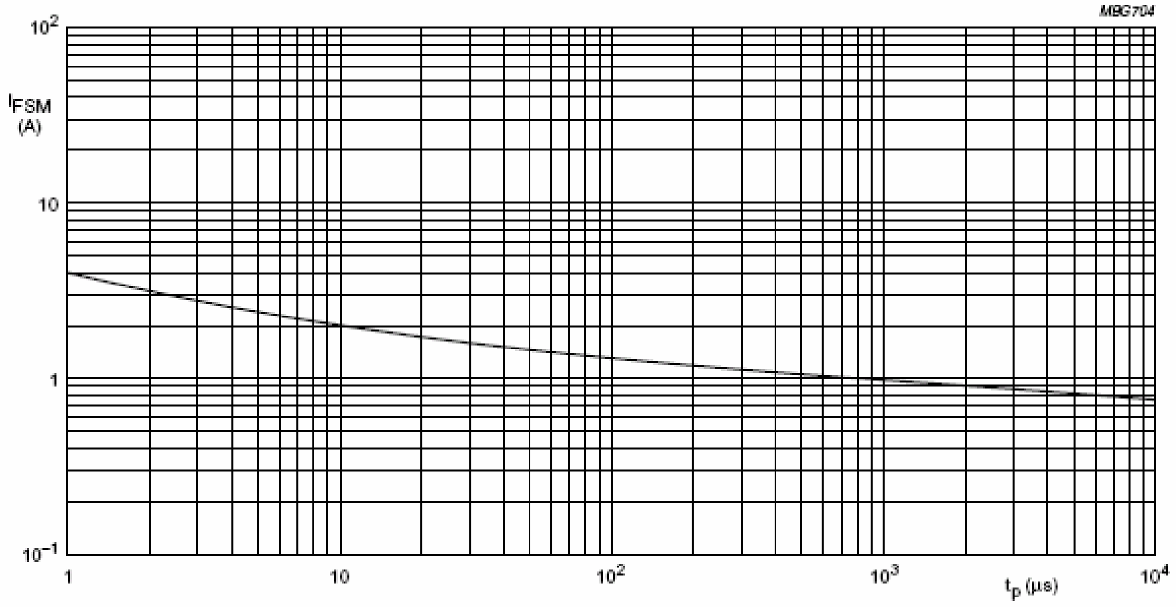


Fig.2 Maximum permissible continuous forward current as a function of soldering point temperature.



(1) T_j = 150 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

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



Based on square wave currents; T_j = 25 °C prior to surge.

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

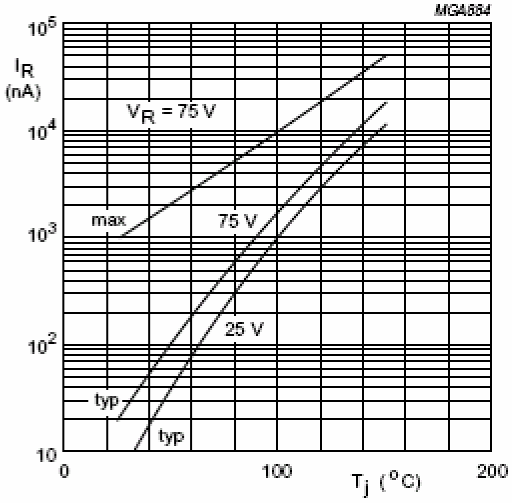
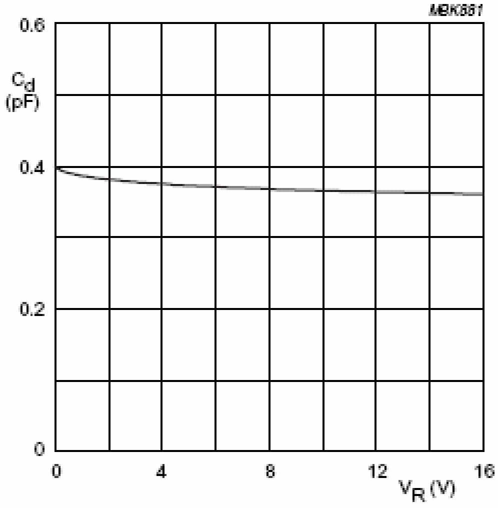


Fig.5 Reverse current as a function of junction temperature.



f = 1 MHz; T_j = 25 °C.

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