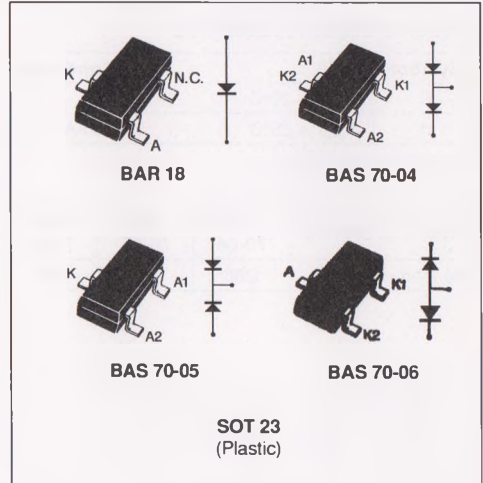


SMALL SIGNAL SCHOTTKY DIODES


DESCRIPTION

Low turn-on and high breakdown voltage diodes intended for ultrafast switching and UHF detectors in hybrid micro circuits.

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	70	V
P_{tot}	Power Dissipation* $T_{amb} = 25^{\circ}C$	200	mW
T_{stg} T_j	Storage and Junction Temperature Range	- 55 to 150 150	$^{\circ}C$ $^{\circ}C$

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	625	$^{\circ}C/W$
$R_{th(j-SR)}$	Junction-substrate	400	$^{\circ}C/W$

* Mounted on ceramic substrate : 7 x 5 x 0.5mm.

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
$V_{(BR)}$	$T_{amb} = 25^{\circ}C$	$I_R = 10\mu A$	70			V
V_F	$T_{amb} = 25^{\circ}C$	$I_F = 1mA$			410	mV
I_R	$T_{amb} = 25^{\circ}C$	$V_R = 50V$			200	nA

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
C	$T_{amb} = 25^{\circ}C$	$V_R = 0$	$f = 1MHz$			2	pF
τ^*	$T_{amb} = 25^{\circ}C$	$I_F = 5mA$	Krakauer Method			100	ps

* Effective carrier life time.

Type	BAR 18	BAS 70-04	BAS 70-05	BAS 70-06
Marking	D76	D96	D97	D98

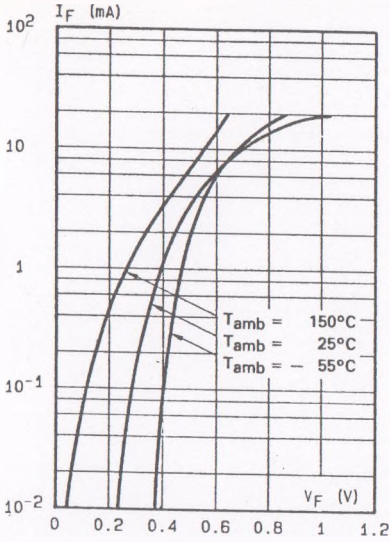


Fig.1 - Forward current versus forward voltage at low level (typical values).

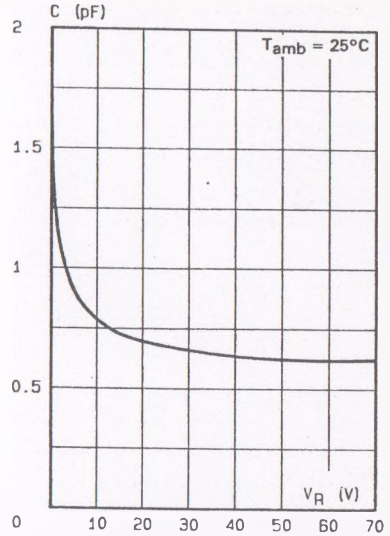


Fig.2 - Capacitance C versus reverse applied voltage V_R (typical values).

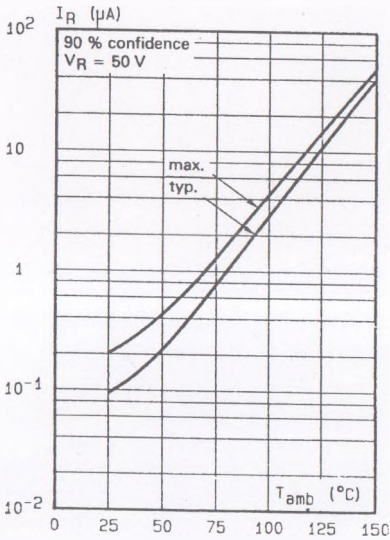


Fig.3 - Reverse current versus ambient temperature.

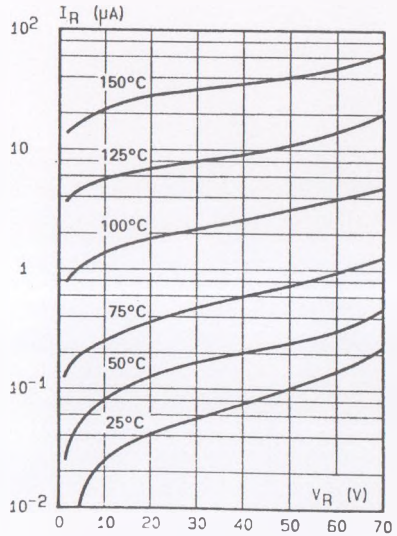


Fig.4 - Reverse current versus continuous reverse voltage (typical values).