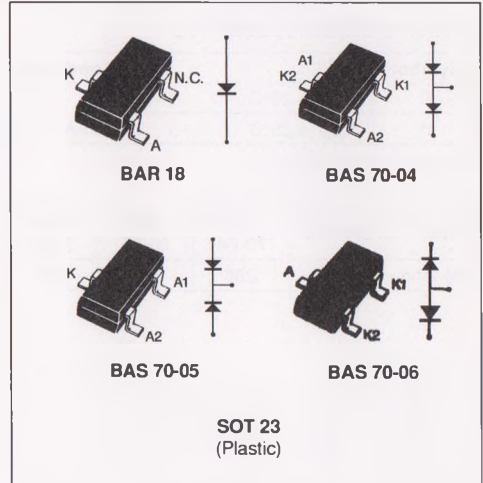


## SMALL SIGNAL SCHOTTKY DIODES



### 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
$\tau^*$	$T_{amb} = 25^{\circ}C$	$I_F = 5mA$	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

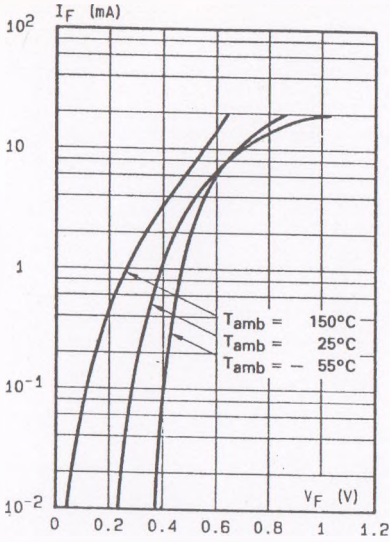


Fig.1 - Forward current versus forward voltage at low level (typical values).

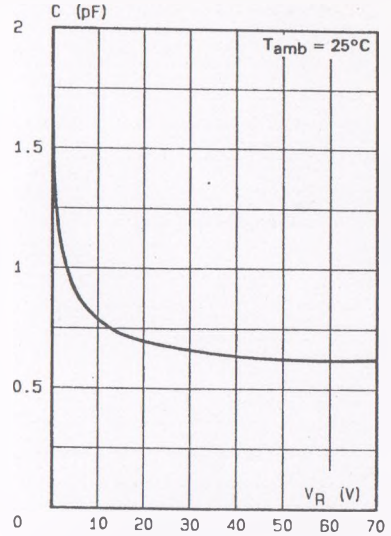


Fig.2 - Capacitance  $C$  versus reverse applied voltage  $V_R$  (typical values).

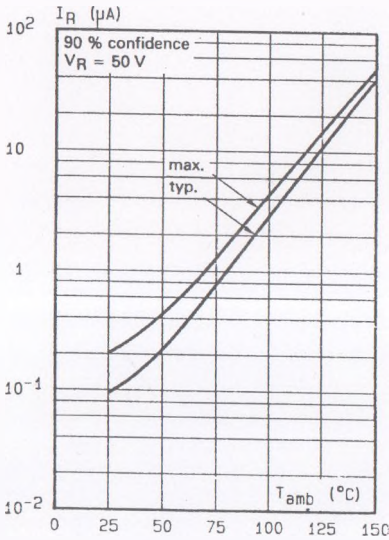


Fig.3 - Reverse current versus ambient temperature.

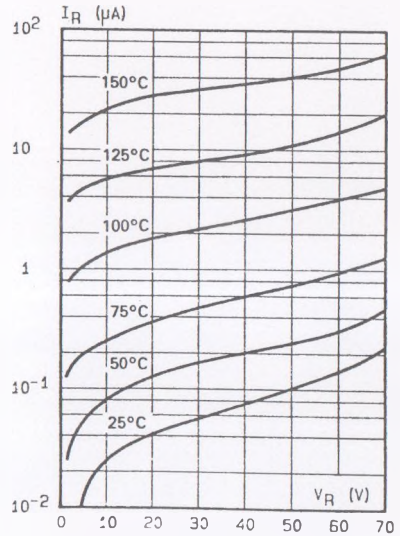


Fig.4 - Reverse current versus continuous reverse voltage (typical values).