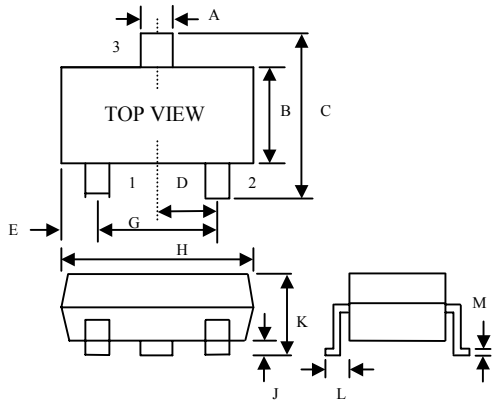
FRONTIER
ELECTRONICS CO., LTD.

BAS70 / 04 / 05 / 06

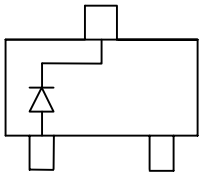
SURFACE MOUNT SCHOTTKY BARRIER DIODE

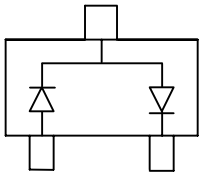
FEATURES
- LOW TURN-ON VOLTAGE
- FAST SWITCHING
- PN JUNCTION GUARD RING FOR TRANSIENT AND ESD PROTECTION

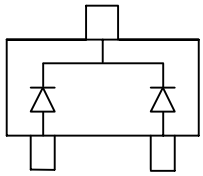
MECHANICAL DATA
- CASE：SOT-23, PLASTIC
- TERMINALS：SOLDERABLE PER MIL-STD-202, METHOD 208
- WEIGHT : 0.008 GRAM
- POLARITY：SEE DIAGRAM

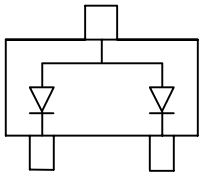


SOT-23		
DIM	Min	Max
A	0.37	0.50
B	1.20	1.39
C	2.10	2.50
D	0.89	1.02
E	0.45	0.60
G	1.78	2.04
H	2.80	3.04
J	0.013	0.10
K	0.89	1.11
L	0.45	0.60
M	0.085	0.177
All Dimensions in mm		


TOP VIEW
BAS70


TOP VIEW
BAS70-04


TOP VIEW
BAS70-05


TOP VIEW
BAS70-06

ELECTRONICAL CHARACTERISTICS @ T_A=25℃ UNLESS OTHERWISE SPECIFIED

RATINGS	SYMBOL	VALUE	UNITS
PEAK REPETITIVE REVERSE VOLTAGE WORKING PEAK REVERSE VOLTAGE DC BOLKING VOLTAGE	V_{RRM} V_{RWM} V_R	70	V
FORWARD CONTINUOUS CURRENT (NOTE 1)	I_F	100	mA
REPETITIVE PEAK FORWARD CURRENT (NOTE 1)	I_{FRM}	300	mA
FORWARD SURGE CURRENT @ tp < 1.0s (NOTE1)	I_{FSM}	600	mA
POWER DISSIPATION（NOTE 1）	Pd	200	mW
THERMAI RESISTANCE. JUNCTION TO AMBIENT AIR	$R_{\theta JA}$	500	K / W
OPERATING AND STORAGE TEMPERATURE RANGE	T_J, T_{STG}	-65 TO +125	℃

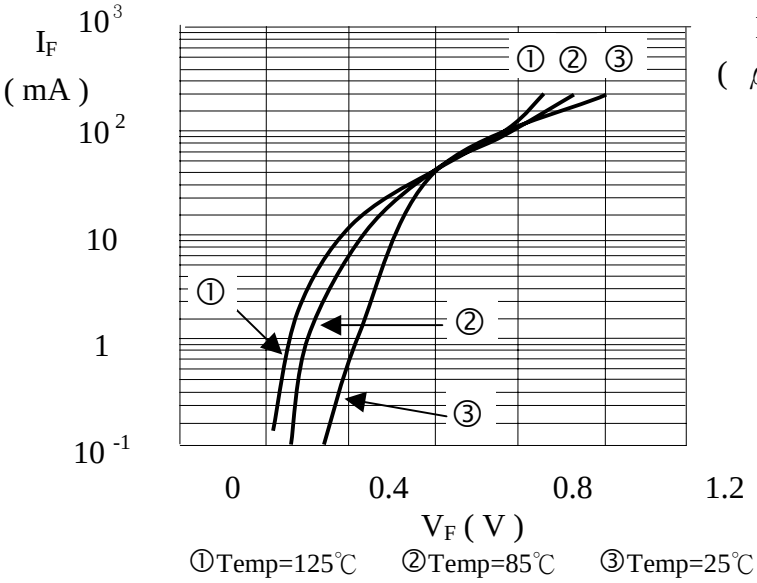
ELECTRONICAL CHARACTERISTICS @ T_A=25℃ UNLESS OTHERWISE SPECIFIED

CHARACTERISTICS	SYMBOL	Min.	Max.	Unit	Test Condition
REVERSE BREAKDOWN VOLTAGE	$V_{(BR)R}$	70	-	V	I_{RS} = 100 μA
FORWARD VOLTAGE	V_F	-	410 1000	mV	Tp < 300 μs, duty cycle < 2% @I_F = 1 mA @I_F = 15 mA
REVERSE LEAKAGE CURRENT	I_R	-	100	nA	tp < 300 μs, duty cycle < 2% @V_R = 50V
JUNCTION CAPACITANCE	C_J	-	2	pF	V_R=1.0 , f=1.0MHZ

NOTE ： 1. DIODE ON FIBERGLASS SUBSTRATE .

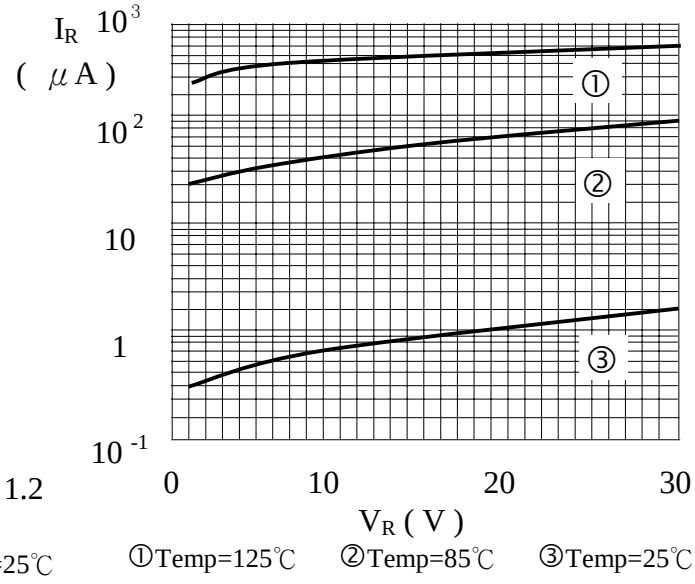
RATINGS AND CHARACTERISTIC CURVE BAS70 / 04 / 05 / 06

FIG 1.
Forward current as a function of forward voltage ; typical values .



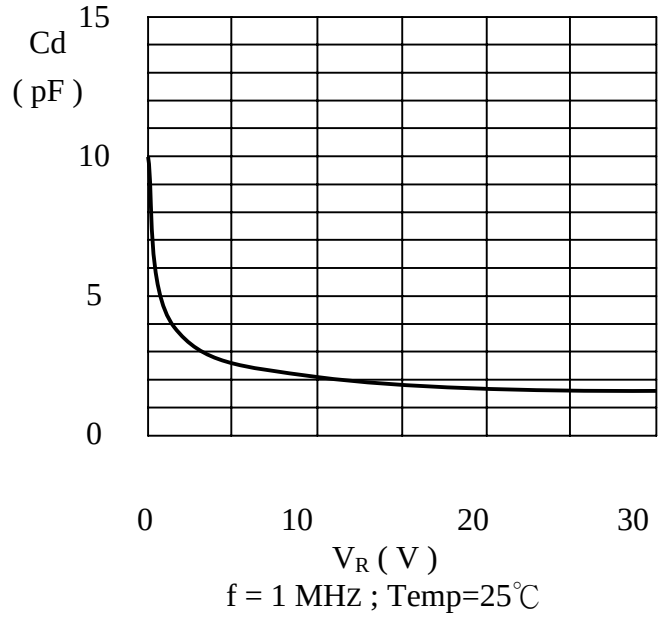
①Temp=125℃ ②Temp=85℃ ③Temp=25℃

FIG 2.
Reverse current as a function of reverse voltage ; typical values .



①Temp=125℃ ②Temp=85℃ ③Temp=25℃

FIG 3.
Diode capacitance as a function of reverse Voltage ; typical values .



f = 1 MHz ; Temp=25℃

FIG 4.
Reverse recovery definitions .