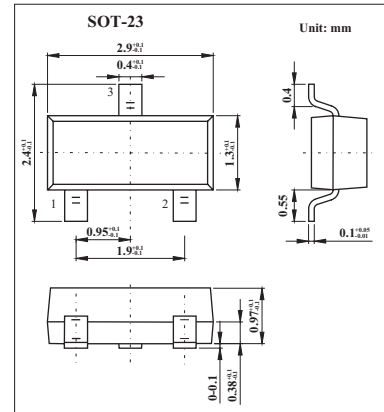
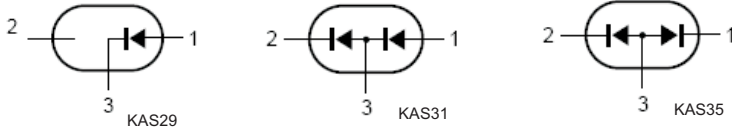


KAS29/KAS31/KAS35 (BAS29/BAS31/BAS35)

■ Features

- Small plastic SMD package
- General application



■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	VRRM	110	V
Continuous reverse voltage	VR	90	V
Continuous forward current* 1	IF	250	mA
single diode loaded; double diode loaded;		150	
Repetitive peak forward current	IFRM	600	mA
Non-repetitive peak forward current square wave; Tj = 25 °C prior to surge;	IFSM	10	A
		t = 100 μs	4
		t = 1 s	0.75
Total power dissipation Ta = 25 °C*1	Ptot	250	mW
Repetitive peak reverse current	Irrm	600	mA
Repetitive peak reverse energy *2	ERRM	5	mJ
Thermal resistance from junction to tie-point	Rth j-tp	360	K/W
Thermal resistance from junction to ambient * 1	Rth j-a	500	K/W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-65 to +150	°C

*1 Device mounted on an FR4 printed-circuit board.

*2 tp ≥ 50 μs; f ≤ 20 Hz; Tj = 25 °C

KAS29/KAS31/KAS35 (BAS29/BAS31/BAS35)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Forward voltage	V _F	I _F = 10 mA			750	mV
		I _F = 50 mA			840	mV
		I _F = 100 mA			900	mV
		I _F = 200 mA			1	V
		I _F = 400 mA			1.25	V
Reverse current	I _R	V _R = 90 V			100	nA
		V _R = 90 V; T _j = 150 °C			100	μ A
Reverse avalanche breakdown voltage	V _{(BR)R}	I _R = 1 mA	120		170	V
Diode capacitance	C _d	f = 1 MHz; V _R = 0			35	pF
Reverse recovery time	t _{rr}	when switched from I _F = 30 mA to I _R = 30 mA; R _L = 100 Ω; measured at I _R = 3 mA			50	ns

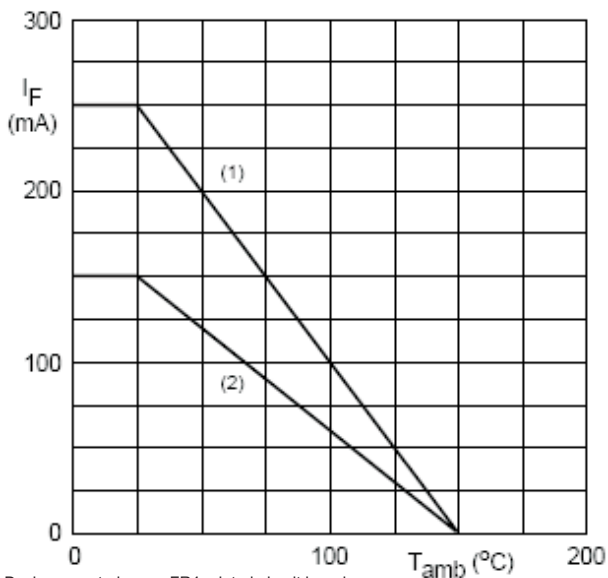
■ Marking

NO.	KAS29	KAS31	KAS35
Marking	L20	L21	L22



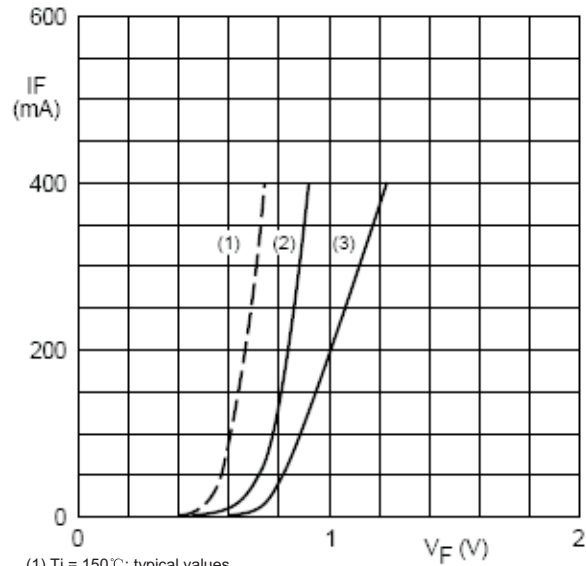
KAS29/KAS31/KAS35 (BAS29/BAS31/BAS35)

■ Typical Characteristics



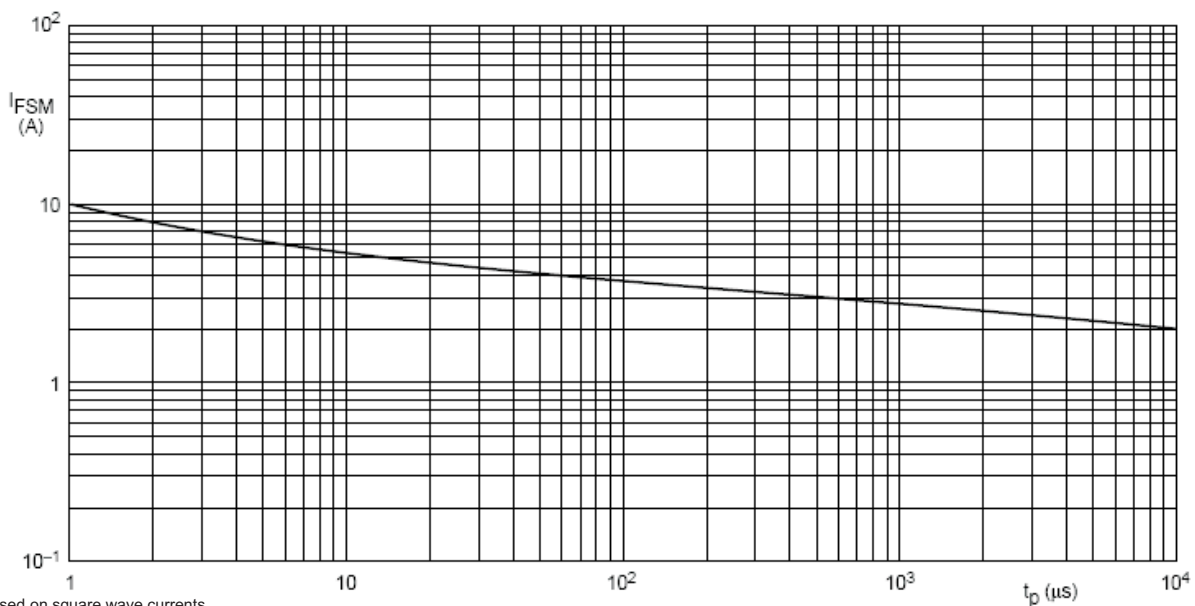
Device mounted on an FR4 printed-circuit board.
(1) Single diode loaded.
(2) Double diode loaded.

Fig.1 Maximum Permissible Continuous Forward Current as a Function Of Ambient Temperature.



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

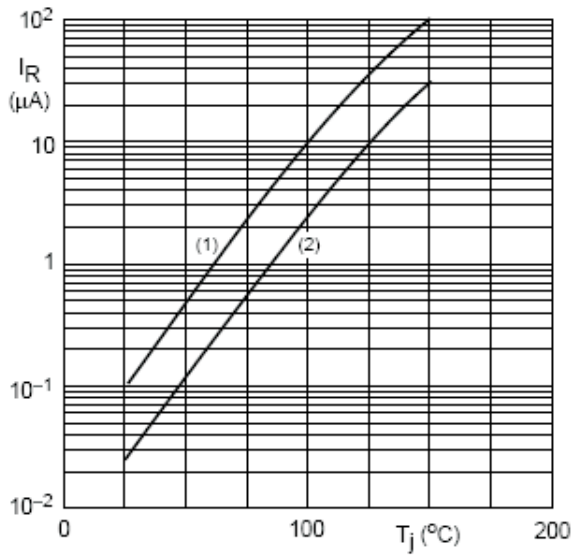
Fig.2 Forward Current as a Function of Forward Voltage.



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

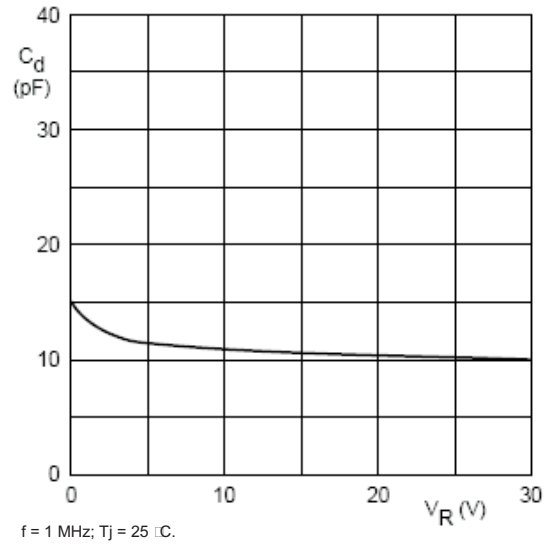
Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

KAS29/KAS31/KAS35 (BAS29/BAS31/BAS35)



(1) $V_R = 90$ V; maximum values.
(2) $V_R = 90$ V; typical values.

Fig.4 Reverse Current as a Function of Junction Temperature.



$f = 1$ MHz; $T_j = 25$ °C.

Fig.5 Diode Capacitance as a Function Of Reverse Voltage; Typical Values.