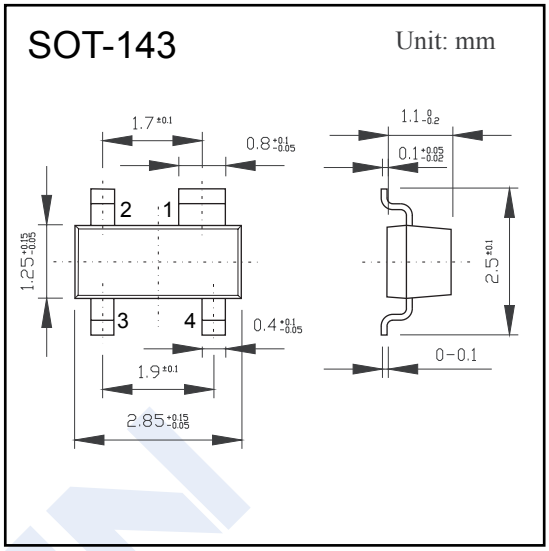
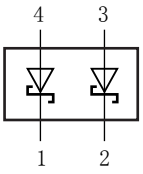
Schottky Diodes

BAS40-07 (KAS40-07)



■ Features

- High switching speed
- High breakdown voltage
- Low leakage current
- Low capacitance



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Peak Reverse Voltage	V_{RM}	40	V
Forward Current	I_F	120	mA
Peak Forward Surge Current	I_{FM}	120	
Non-Repetitive Peak Forward Current @ tp ≤ 10 ms	I_{FSM}	200	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-65 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	V_{F1}	I_F= 1 mA			380	mV
	V_{F2}	I_F= 10mA			500	
	V_{F3}	I_F= 40 mA			1	V
Reverse voltage leakage current	I_{R1}	V_R=30 V			1	uA
	I_{R2}	V_R=40 V			10	
Capacitance between terminals	C_T	V_R= 0 V, f= 1 MHz			5	pF

■ Marking

Marking	47*

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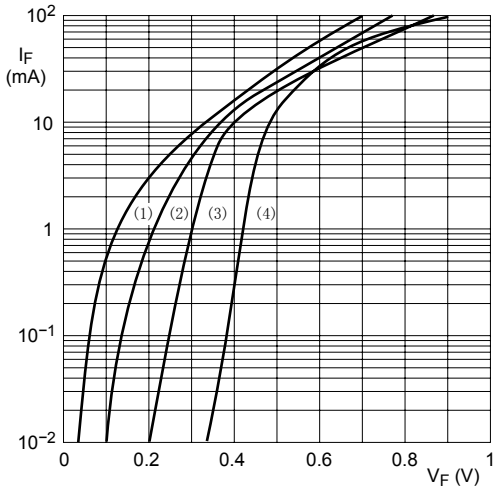
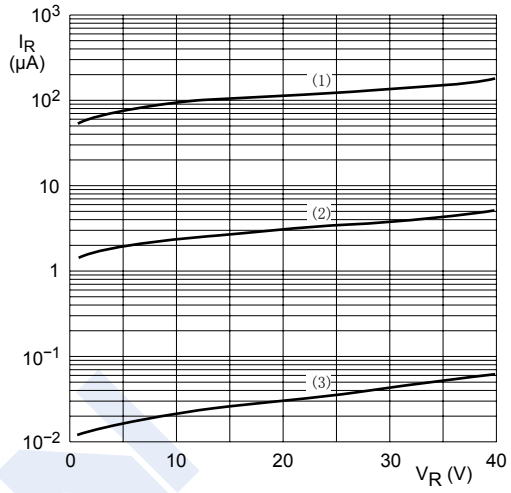
■ Typical Characterisitics



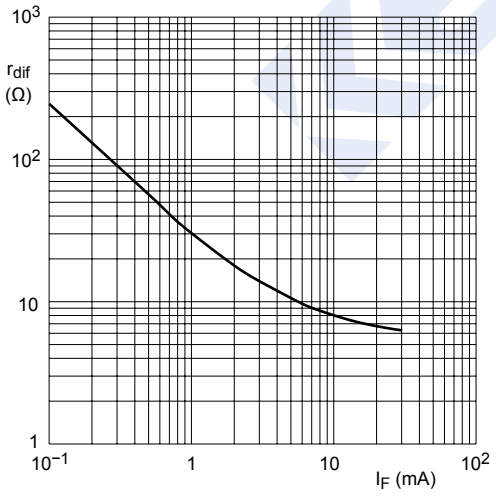
(1) T_{amb} = 125 °C
(2) T_{amb} = 85 °C
(3) T_{amb} = 25 °C
(4) T_{amb} = –40 °C

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



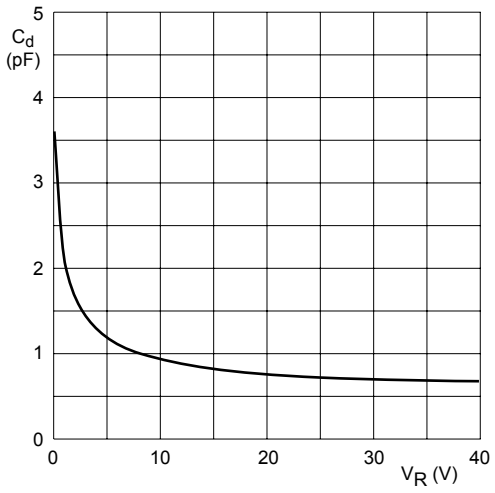
(1) T_{amb} = 125 °C
(2) T_{amb} = 85 °C
(3) T_{amb} = 25 °C

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



f = 10 kHz

Fig 3. Differential resistance as a function of forward current; typical values



T_{amb} = 25 °C; f = 1 MHz

Fig 4. Diode capacitance as a function of reverse voltage; typical values