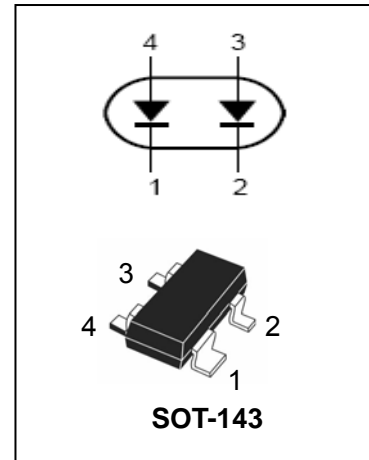


High-speed double diode

BAS28

FEATURES

- Continuous reverse voltage:max.75V
- High switching speed:4ns.
- Repetitive peak forward current:max.500mA



APPLICATIONS

- High speed switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS28	JT	SOT-143

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Limits	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Continuous forward current	I_F	215	mA
Repetitive peak forward current	I_{FRM}	500	mA
Surge current	I_{FSM}	4 1 0.5	A
	$t=1\mu s$		
	$t=1ms$		
	$t=1s$		
Power Dissipation(Note1)	P_d	250	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	T_j	150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Note:1.Device mounted on an FR4 printed-circuit board.

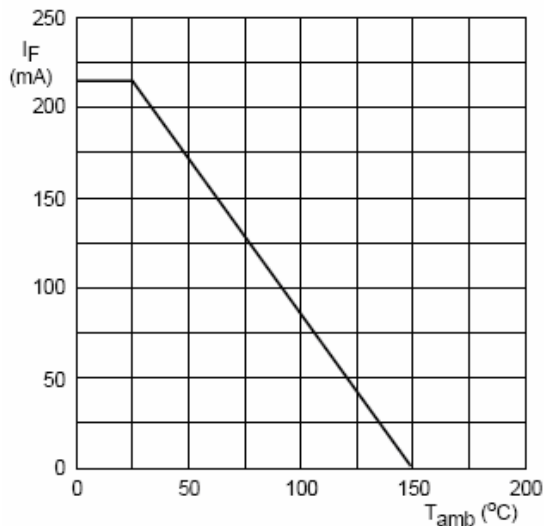
High-speed double diode

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

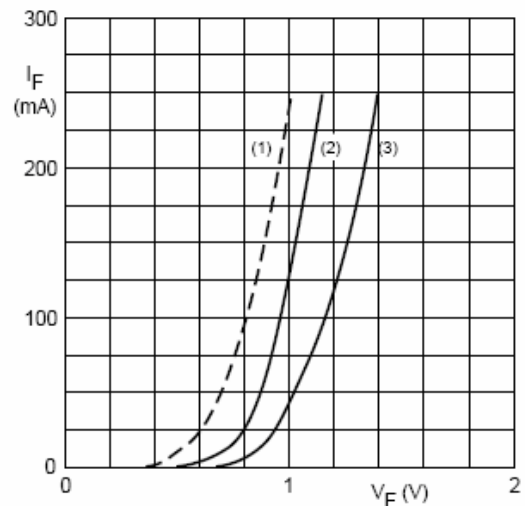
Characteristic	Symbol	Min	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V	$I_R = 100\mu A$
Forward Voltage	V_F	-	0.715 0.855 1.0 1.25	V	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 100mA$
Reverse Leakage Current	I_R	-	0.03 1.0 30 50	μA	$V_R = 25V$ $V_R = 75V$ $V_R = 25V, T_j = 150^\circ C$ $V_R = 75V, T_j = 150^\circ C$
Diodes Capacitance	C_d	-	1.5	pF	$V_R = 0V, f = 1.0MHz$
Reverse Recovery Time	t_{rr}	-	4.0	ns	$I_F = I_R = 10mA, I_{rr} = 0.1 \cdot I_R$
Forward recovery voltage	V_{fr}	-	1.75	V	$I_F = 10mA, t_r = 20ns$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Device mounted on an FR4 printed-circuit board.

Maximum permissible continuous forward current as a function of ambient temperature.

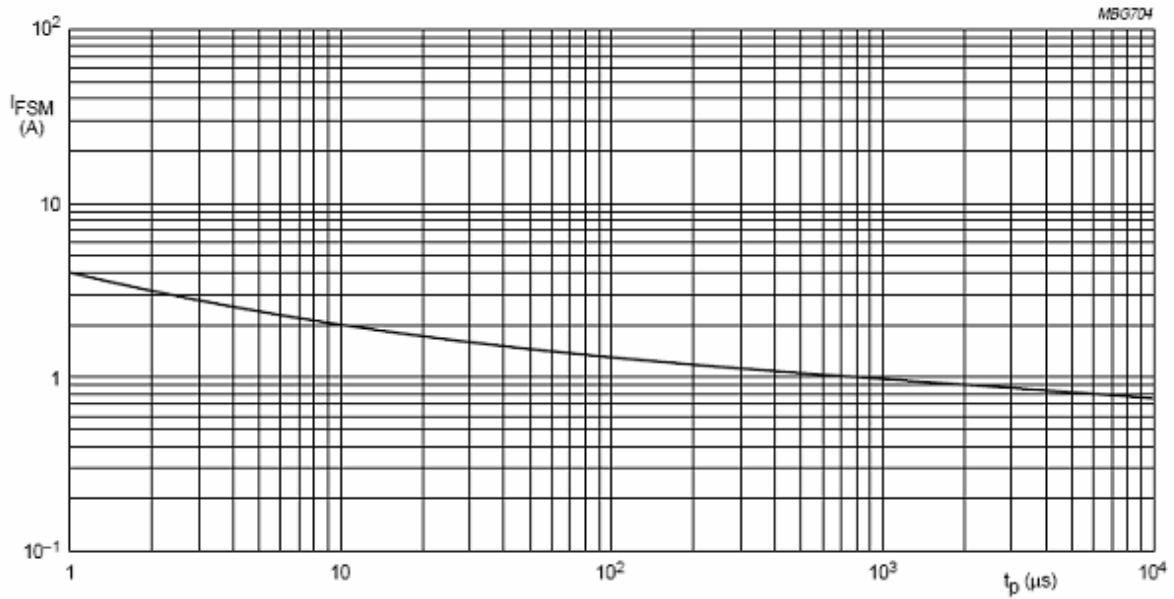


- (1) $T_j = 150^\circ C$; typical values.
- (2) $T_j = 25^\circ C$; typical values.
- (3) $T_j = 25^\circ C$; maximum values.

Forward current as a function of forward voltage.

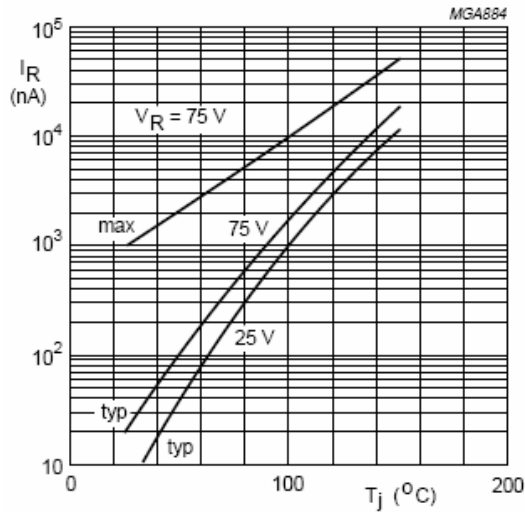
High-speed double diode

BAS28

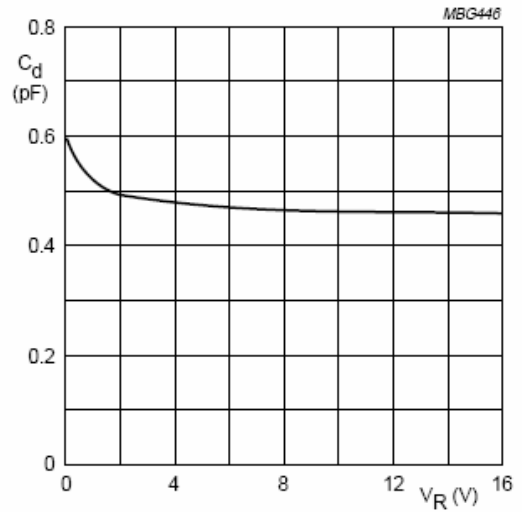


Based on square wave currents.
 $T_j = 25\text{ }^\circ\text{C}$ prior to surge.

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



Reverse current as a function of junction temperature.



$f = 1\text{ MHz}$; $T_j = 25\text{ }^\circ\text{C}$.

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

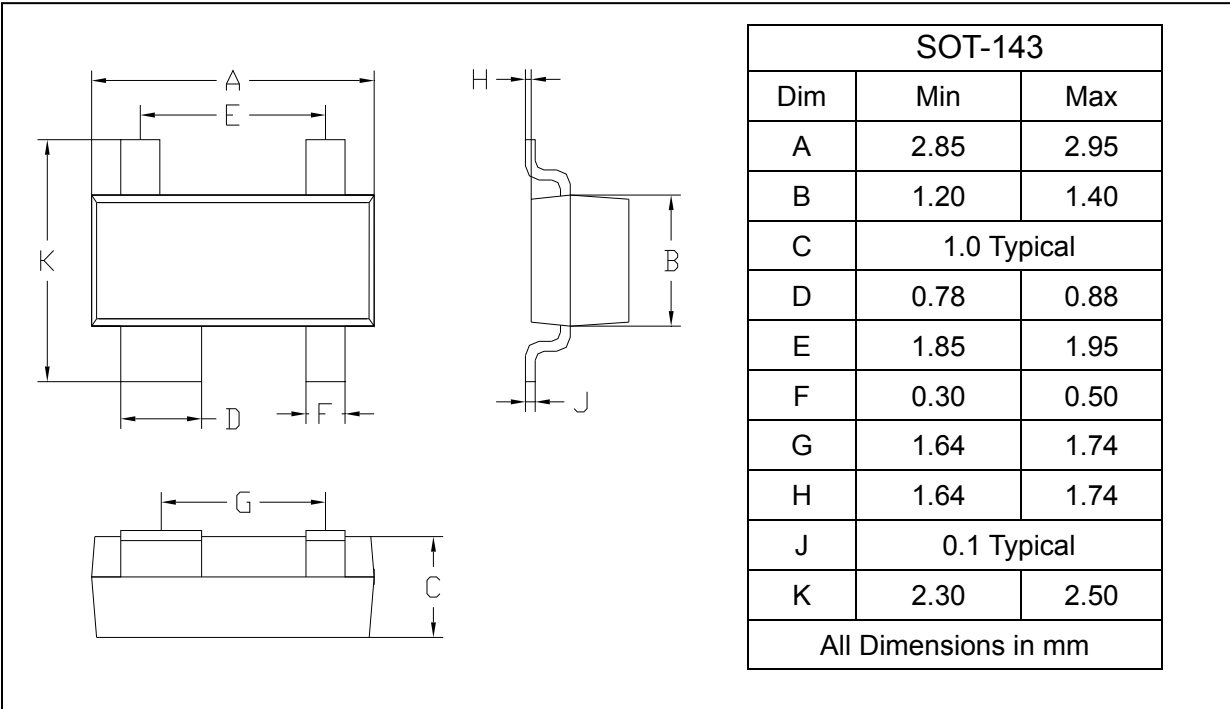
High-speed double diode

BAS28

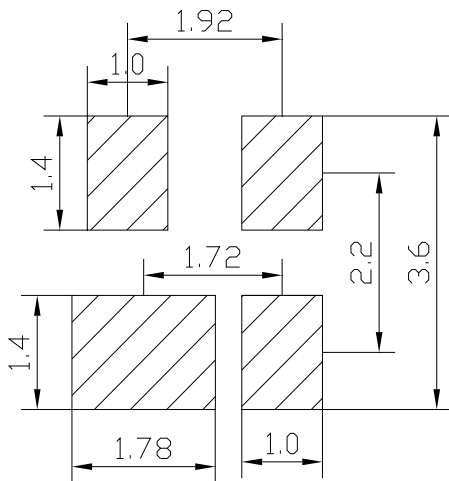
PACKAGE OUTLINE

Plastic surface mounted package

SOT-143



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAS28	SOT-143	3000/ Tape&Reel