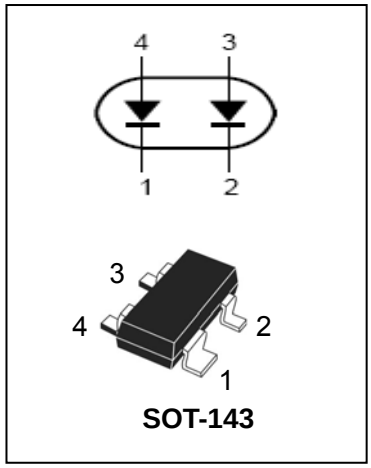
High-speed double diode **BAS28**

FEATURES

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

Lead-free



SOT-143

APPLICATIONS

- High speed switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS28	JT	SOT-143

MAXIMUM RATING @ Ta=25℃ 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 t=1μs t=1ms t=1s	I_{FSM}	4 1 0.5	A
Power Dissipation(Note1)	P_d	250	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	500	℃/W
Operating Junction Temperature Range	T_j	150	℃
Storage Temperature Range	T_{STG}	-65 to +150	℃

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

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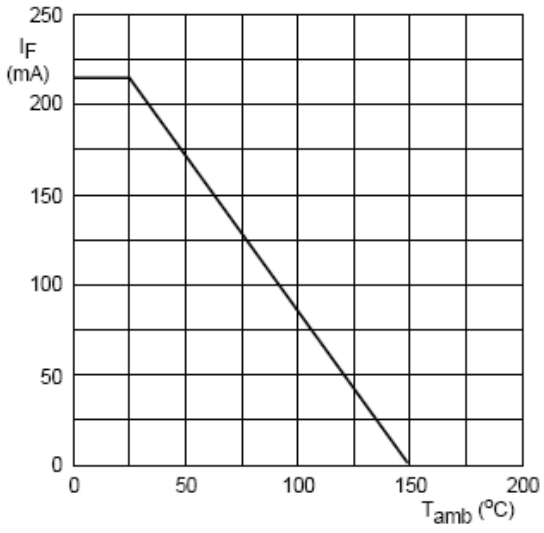
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

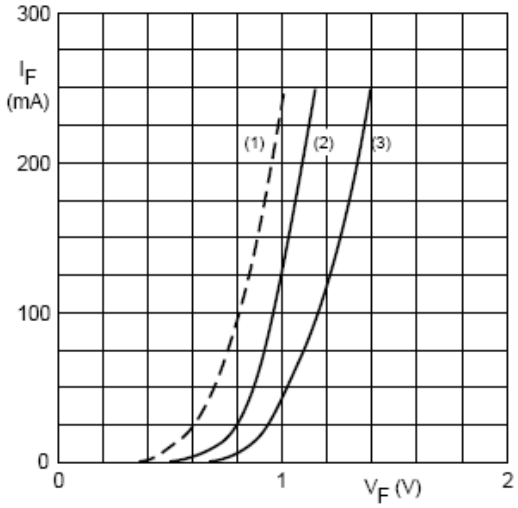
Characteristic	Symbol	Min	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V	I_R= 100μA
Forward Voltage	V_F	-	0.715 0.855 1.0 1.25	V	I_F=1mA I_F=10mA I_F=50mA I_F=100mA
Reverse Leakage Current	I_R	-	0.03 1.0 30 50	μA	V_R=25V V_R=75V V_R=25V,T_j=150℃ V_R=75V,T_j=150℃
Diodes Capacitance	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*I_R
Forward recovery voltage	V_{fr}	-	1.75	V	I_F=10mA,t_r=20ns

TYPICAL CHARACTERISTICS @ Ta=25℃ 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 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C: maximum values.

Forward current as a function of forward voltage.

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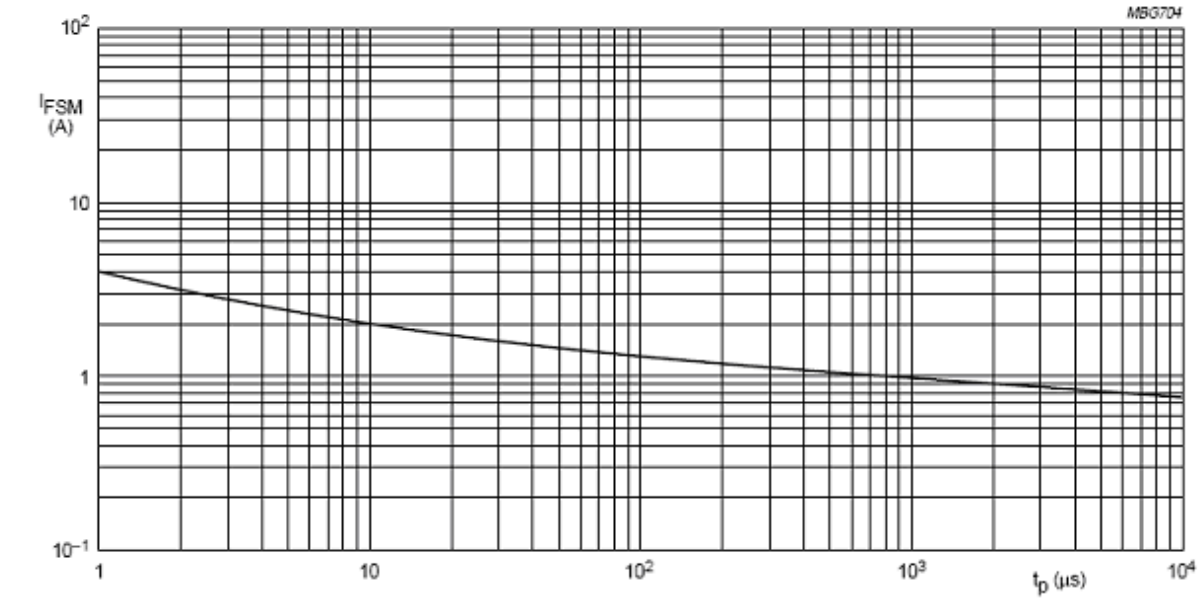
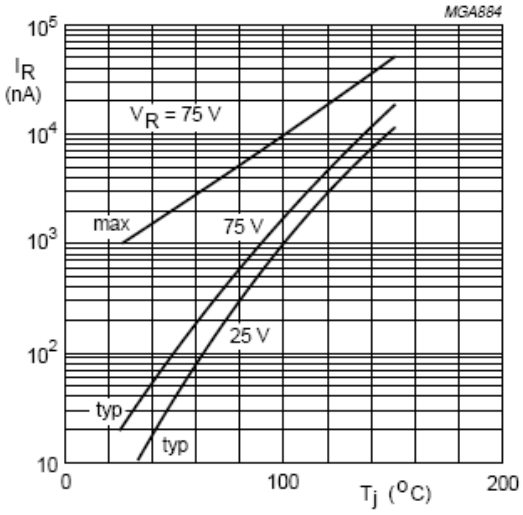
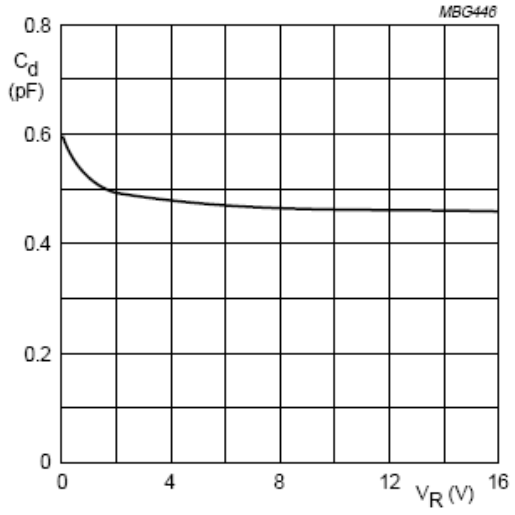


Based on square wave currents.
T_j = 25 °C prior to surge.

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



Reverse current as a function of junction temperature.



f = 1 MHz; T_j = 25 °C.

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

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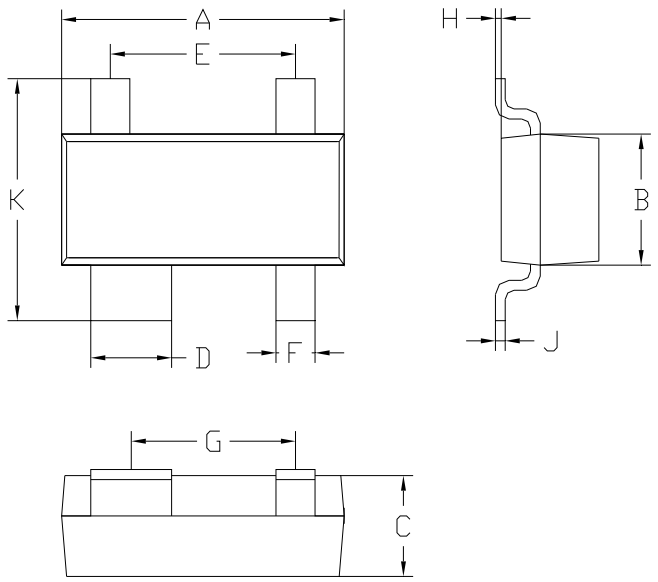
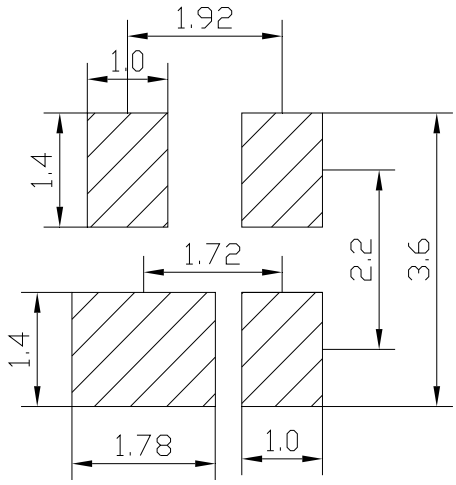
PACKAGE OUTLINE

Plastic surface mounted package SOT-143



SOT-143		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.00 Typical	
D	0.83 Typical	
E	1.80	2.00
F	0.40 Typical	
G	1.59	1.79
H	0.02	0.1
J	0.10 Typical	
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit ： mm

PACKAGE INFORMATION

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