

描述 / Descriptions

SOT-363 塑封封装 硅半导体二极管。
Silicon Diode in a SOT-363 Plastic Package.

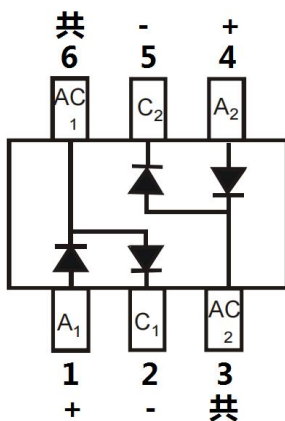
特征 / Features

小信号二极管, 开关速度快, 符合 AEC-Q101 标准高可靠性要求, 无卤产品。
Small signal diode, Fast Switching Speed, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

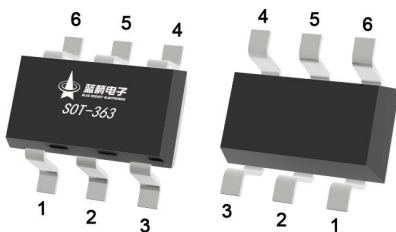
用途 / Applications

高导电率的超快速二极管, 满足汽车应用的严格要求。
High Conductance Ultra Fast Diode, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN 1 : A1 PIN 2 : C1 PIN 3 : AC2 PIN 4 : A2 PIN 5 : C2 PIN 6 : AC1

印章代码 / Marking

见印章说明。 See Marking Instructions.

极限参数 / Absolute Maximum Ratings(NPN,Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM}	75	V
	V_{RWM}		
	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	215	mA
Non-Repetitive Peak Forward Surge Current@8.3mS	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

电性能参数 / Electrical Characteristics((NPN,Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	最大值 Max	单位 Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 2.5 \mu A$	75		V
Forward Voltage	V_F	$I_F = 1.0mA$		0.715	V
		$I_F = 10mA$		0.855	
		$I_F = 50mA$		1.0	
		$I_F = 150mA$		1.25	
Reverse Current	I_R	$V_R = 75V$		2.5	μA
		$V_R = 20V$		25	nA
Total Capacitance	C_T	$V_R = 0, f = 1.0MHz$		2.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10mA,$ $I_{Tr} = 0.1 \times I_R, R_L = 100 \Omega$		4.0	ns

电参数曲线图 / Electrical Characteristic Curve(NPN)

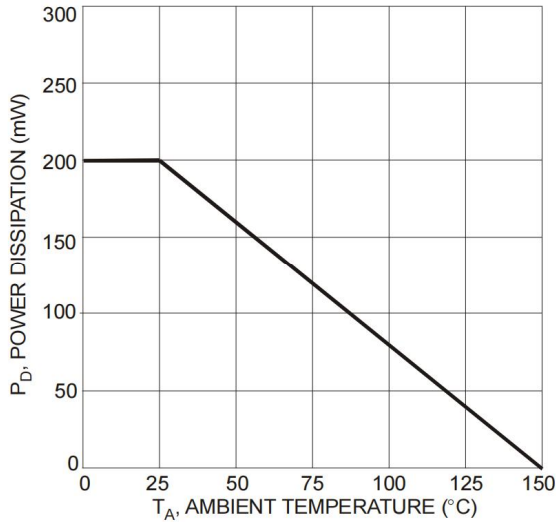


Fig. 1 Power Derating Curve, Total Package

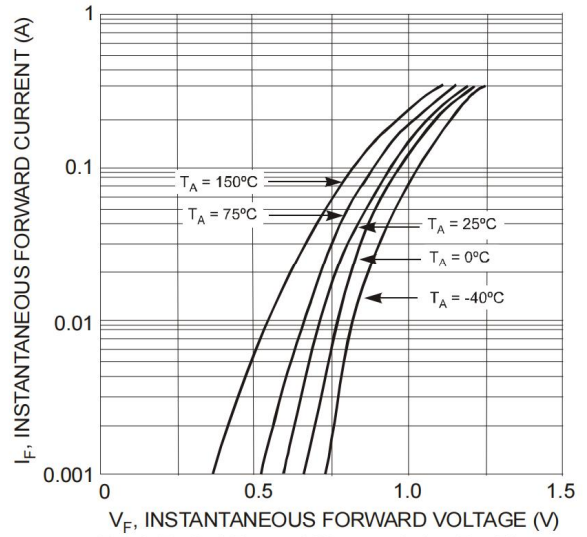


Fig. 2 Typical Forward Characteristics, Per Element

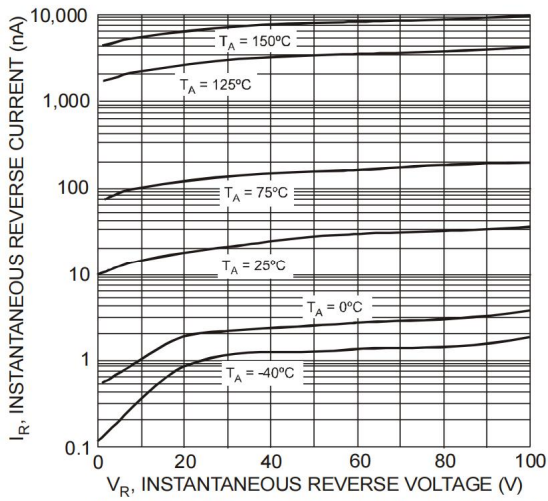


Fig. 3 Typical Reverse Characteristics, Per Element

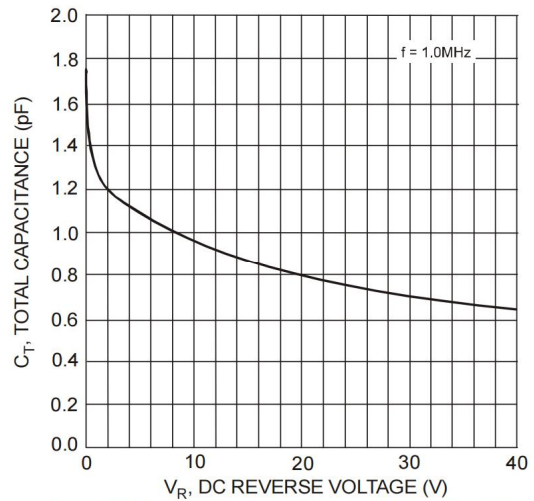
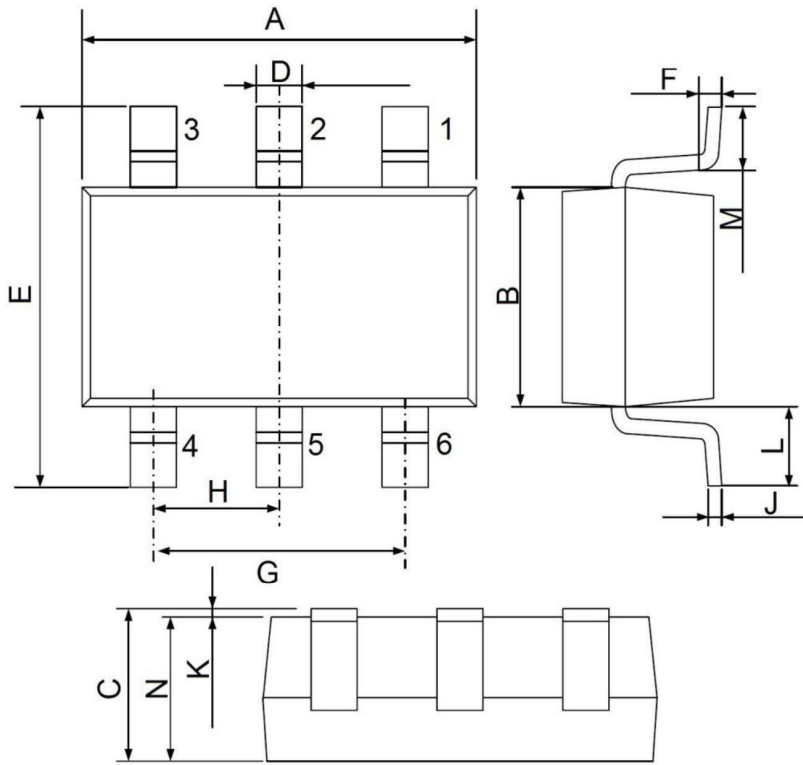


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

外形尺寸图 / Package Dimensions

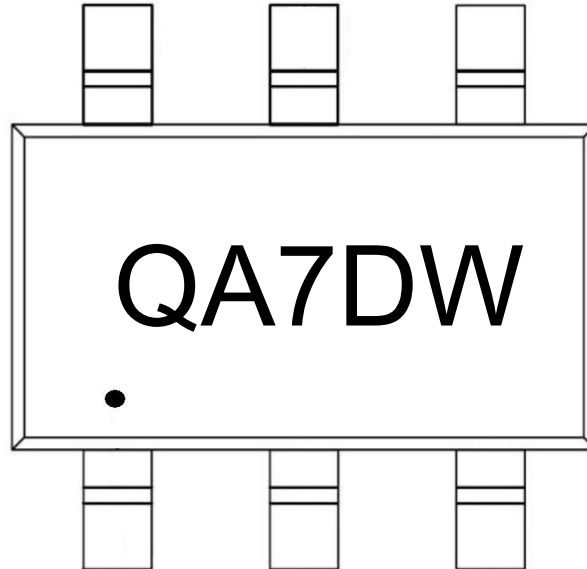
SOT-363-6L



UNIT: mm

DIM	MIN	MAX
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	1.95	2.25
F	0.20 Typ.	
G	1.20	1.40
H	0.65 Typ.	
J	0.08	0.15
K	0.00	0.10
L	0.525 Ref.	
M	0.26	0.46
N	0.90	1.10

印章说明 / Marking Instructions

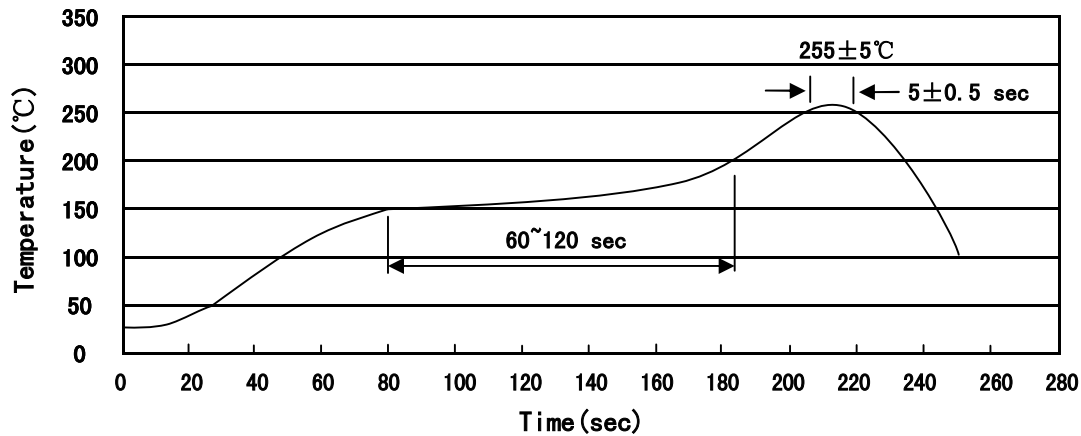


说明：

- ： 为“1”脚
- Q： 为汽车无卤产品标识
- A7DW： 为型号代码

Note:

- ： “1” Pin
- Q: Automobile halogen-free product Code
- A7DW： Product Type Code

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)


说明：

- 1、预热温度 150~200°C，时间 60~120sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-363	3,000	10	30,000	6	180000	7" ×8	180×120×180	390×385×205

使用说明 / Notices