

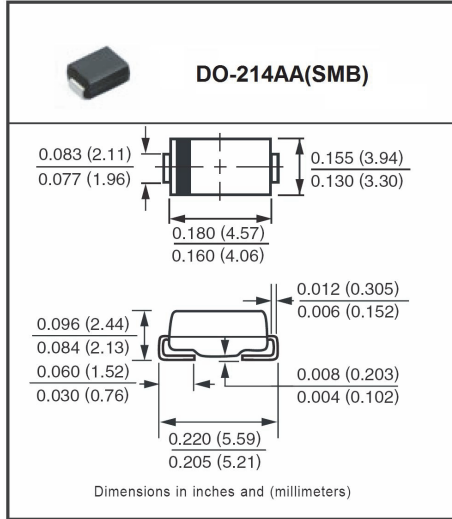


ES3AB thru ES3MB

SHANGSI

表面安装超快速整流二极管
反向电压 50 --- 1000
V 正向电流 3.0A

Surface Mount Super Fast Recover Rectifiers
Reverse Voltage 50 to 1000 V
Forward Current 3.0 A



特征 Features

- 低的反向漏电流 Low reverse leakage
- 玻璃钝化芯片 Glass passivated chip junction
- 较强的正向浪涌承受能力 High forward surge capability
- 快速开关高频应用 Fast switching for high efficiency
- 高温焊接保证 260°C/10秒 High temperature soldering guaranteed: 260°C/10 seconds at terminals
- 引线 and 管体皆符合 RoHS 标准。Lead and body according with RoHS standard

机械数据 Mechanical Data

- 封装: 塑料封装 Case: Molded plastic body
- 端子: 焊料被镀 Terminals: Solder plated
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性 $T_A = 25^\circ\text{C}$ 除非另有规定。

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	ES3AB	ES3BB	ES3CB	ES3DB	ES3GB	ES3JB	ES3KB	ES3MB	Unit
最大反向峰值电压 Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	400	600	800	1000	V
最大反向有效值电压 Maximum RMS voltage	V_{RMS}	35	70	105	140	280	420	560	700	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	600	800	1000	V
最大正向平均整流电流 Maximum average forward rectified current	$I_{F(AV)}$	3.0								A
正向峰值浪涌电流 8.3ms 单一正弦半波 Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	100								A
最大反向峰值电流 @ $T_A = 75^\circ\text{C}$ Maximum peak reverse current full cycle	$I_{R(AV)}$	30								μA
典型热阻 Typical thermal resistance	$R_{\theta JA}$	50								$^\circ\text{C}/\text{W}$
工作结温和存储温度 Operating junction and storage temperature range	T_J, T_{STG}	-50---+150								$^\circ\text{C}$

电特性 $T_A = 25^\circ\text{C}$ 除非另有规定。

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	ES3AB	ES3BB	ES3CB	ES3DB	ES3GB	ES3JB	ES3KB	ES3MB	Unit
最大正向电压 $I_F = 3.0\text{A}$ Maximum forward voltage	V_F	0.95				1.30		1.70		V
最大反向漏电流 $T_A = 25^\circ\text{C}$ Maximum reverse current	I_R	5.0								μA
最大反向恢复时间 $I_F = 0.5\text{A}$ $I_R = 1.0\text{A}$ $I_{RR} = 0.25\text{A}$ MAX. Reverse Recovery Time	t_{rr}	35						75		nS
典型结电容 $V_R = 4.0\text{V}$, $f = 1\text{MHz}$ Type junction capacitance	C_J	60								pF

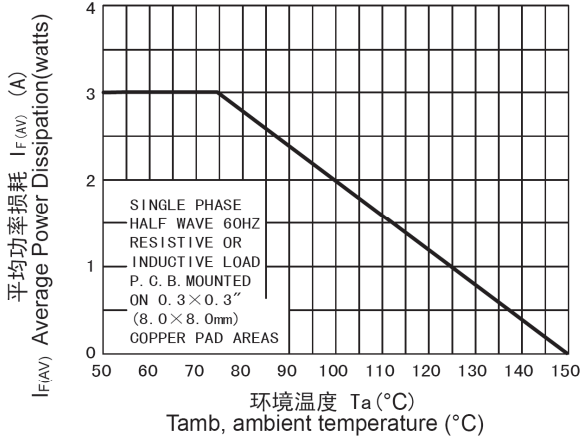


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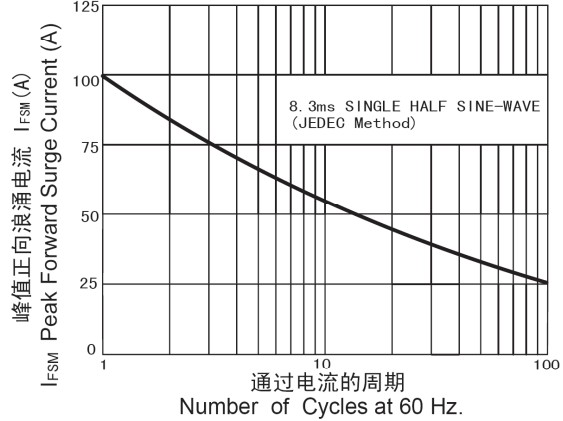
ES3AB thru ES3MB

特性曲线 Characteristic Curves

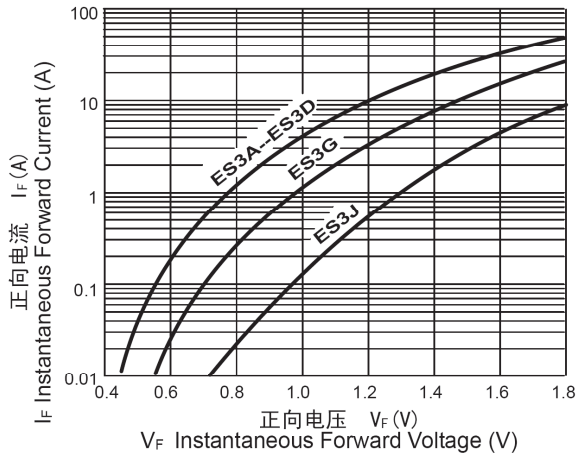
正向电流降额曲线
FORWARD CURRENT DERATING CURVE



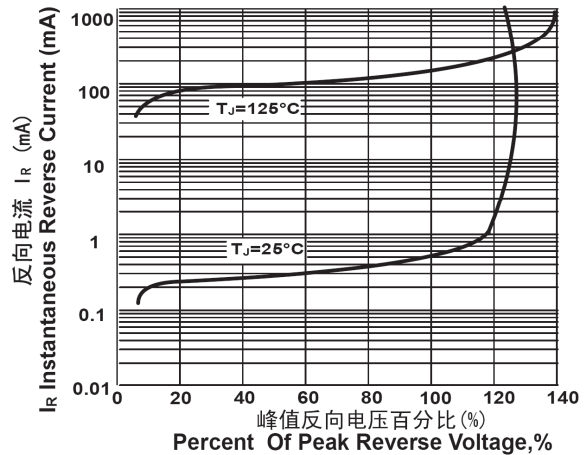
浪涌特性曲线 (最大值)
MAXIMUM NON REPETITIVE
PEAK FORWARD SURGE CURRENT



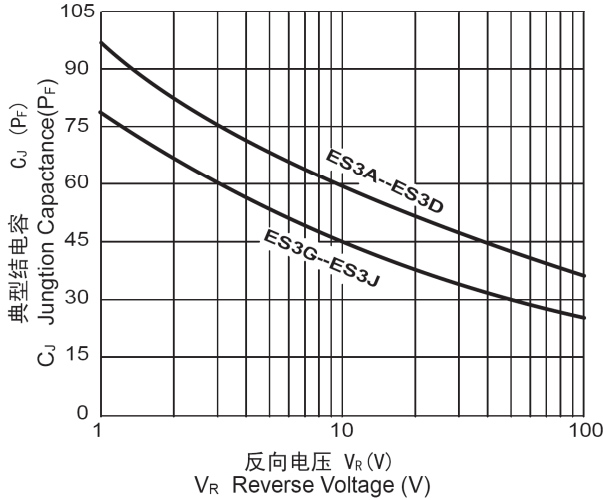
正向特性曲线 (典型值)
TYPICAL FORWARD CHARACTERISTIC



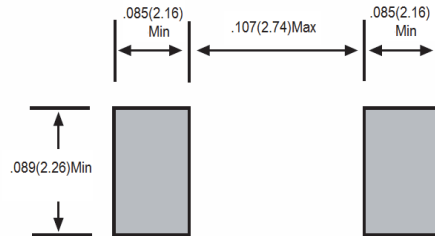
反向特性曲线 (典型值)
TYPICAL REVERSE CHARACTERISTICS



典型结电容
TYPICAL JUNCTION CAPACITANCE



Mounting Pad Layout



Packing

Part number	Component Package	Quantity	Packaging Option
ES3AB-ES3MB	DO-214AA SMB	3000	Tape & Reel – 12mm/13" tape

Tape and Reel Specification

