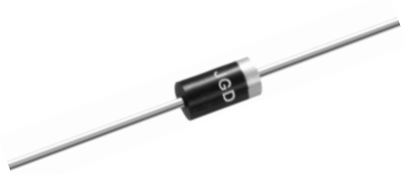
ST5100

Low VF Schottky Rectifier

Features

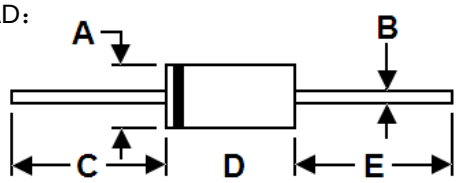
* Ultra Low Forward Voltage Drop
* Low Power Losses, High Efficiency Operation
* High Current Capability
* Low Thermal Resistance Package
* High Operating Junction Temperature
* Plastic Case Material has UL Flammability Classification Rating 94V-0



RoHS COMPLIANT

Package Outline Dimensions

DO-201AD：



DIM.	Unit（mm）		Unit（inch）	
	Min	Max	Min	Max
A	4.8	5.3	0.189	0.209
B	1.2	1.3	0.047	0.051
C	25.4	-	1.0	-
D	7.2	9.6	0.283	0.378
E	25.4	-	1.0	-

Mechanical Data

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
* Polarity: Color band denotes cathode end

Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Type Number		**Symbols**	**ST5100**		**Unit**
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100		V
Maximum RMS Voltage		V_{RMS}	70		V
Maximum D.C Blocking Voltage		V_{DC}	100		V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	5		A
Peak Forward Surge Current, 8.3ms single half sine-wave		I_{FSM}	120		A
Maximum Instantaneous Forward Voltage at 5.0A(Note1)		V_F	TYP	MAX	V
	I_F=1A I_F=3A T_J=25℃ I_F=5A		0.42 0.47 0.51	- - 0.60	
	I_F=1A I_F=3A T_J=125℃		0.32 0.47	- -	
Maximum Reverse Current		I_R	TYP	MAX	μA
	V_R=80V T_J=25℃		5	-	
	V_R=100V T_J=25℃		23	100	μA
Typical Thermal Resistance		$R_{\theta JL}$	23		℃/W
Operating and storage Temperature Range		T_J/ T_{STG}	-55 to +150		℃

Note: 1、Pulse test: tp=300μS, 1% duty cycle

Ratings and Characteristic Curves

FIG.1 FORWARD CURRENT DERATING CURVE

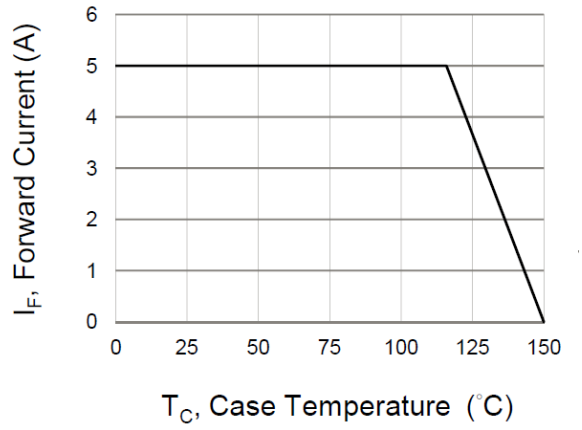


FIG.2 TYPICAL JUNCTION CAPACITANCE

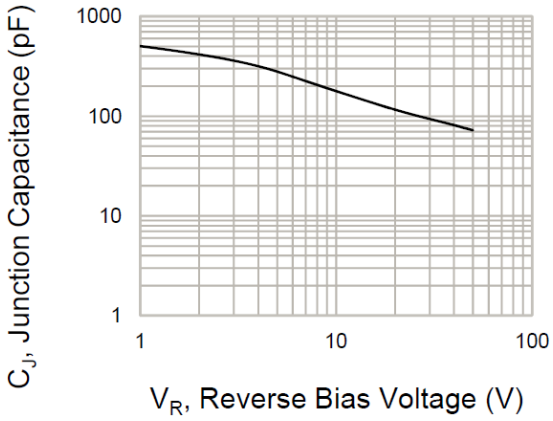


FIG.3 TYPICAL REVERSE CHARACTERISTICS

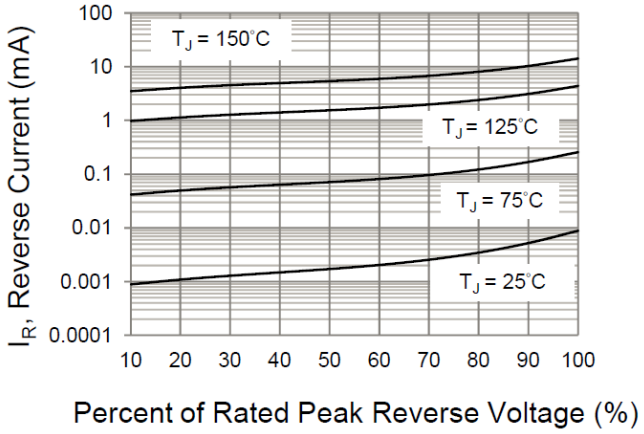
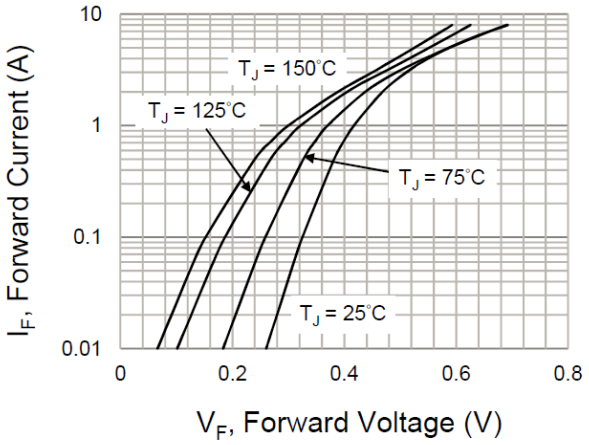


FIG.4 TYPICAL FORWARD CHARACTERISTICS



Ordering Information

Part No.	Package	Packing
ST5100	DO-201AD	1.2K/AMMO box
ST5100	DO-201AD	1.2K/13" Paper reel
ST5100	DO-201AD	0.5K/Bulk packing