ST860

Reverse Voltage - 60Volts Forward Current -8.0 Ampere

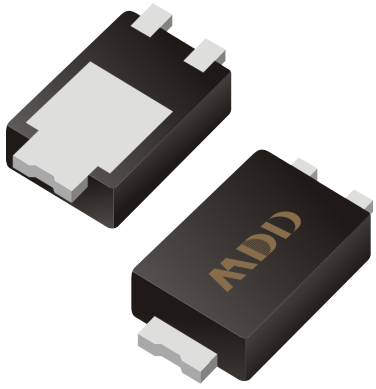
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

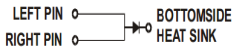
Features

TO-277

RoHS COMPLIANT

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief,ideal for automated placement
- Low forward voltage drop
- High forward surge current capability
- High temperature soldering guaranteed 250℃/10 seconds at terminals





Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC TO-277 Molded plastic body
Case Material: Molding compound meets UL 94V-0 flammability rating
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.003 ounce, 0.092 grams

Maximum Ratings And Electrical Characteristics

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

Parameter	SYMBOL	ST860	UNIT
Marking Code		MDD ST860	
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum DC blocking voltage	V_{DC}		
Maximum RMS voltage	V_{RMS}	42	V
Average Rectified Output Current	$I_{(O)}$	8	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A

Electrical Characteristics Ta=25℃ unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ	Max	
Forward Voltage Drop	at 2.0A	V_F	-	0.40	V
	at 8.0A		-	0.55	
Peak reverse curent at rated DC blocking voltage	TA=25℃	I_R	-	0.5	mA
	TA=125℃		-	50	mA
Operating junction storage temperature range		T_J	-55 to +150		℃
Storage temperaturerange		T_{STG}	-55 to +150		℃
Typical thermal resistance		$R_{\theta JA}$	60.0		℃/W

Note:1.The typical data above is for referenceonly.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

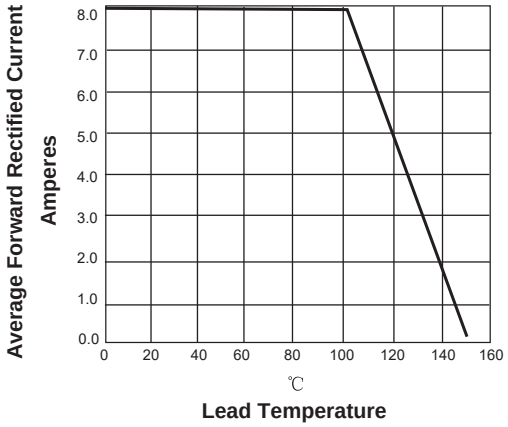


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

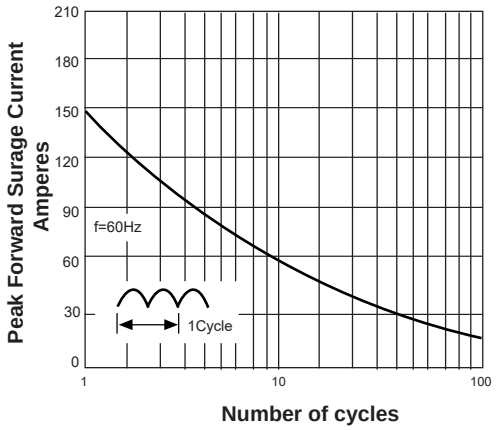


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

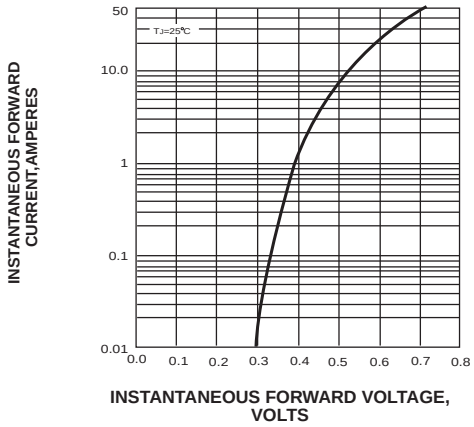
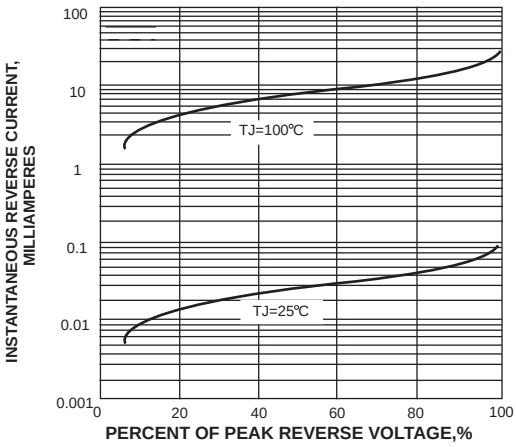
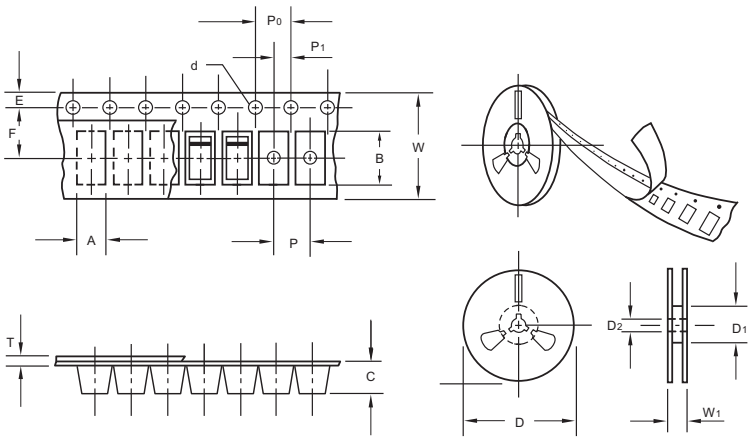


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.

Packing information



unit:mm

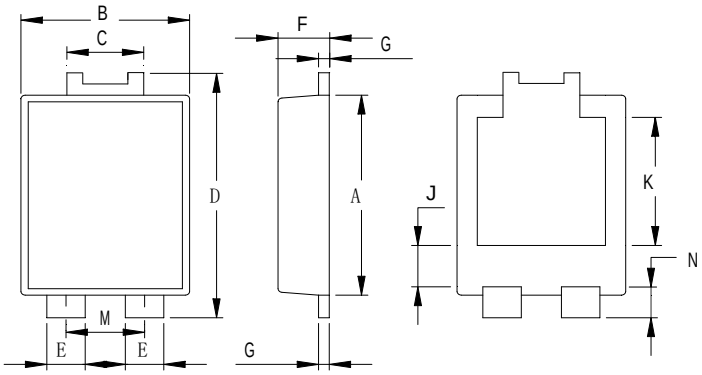
Item	Symbol	Tolerance	TO-277
Carrier width	A	0.1	4.45
Carrier length	B	0.1	7.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D_1	min	50.0
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	12.00
Reel width	W_1	1.0	12.30

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

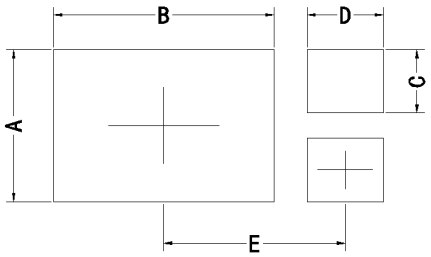
PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
TO-277	13"	5,000	4.0	10,000	210*208*203	330	430*430*235	80,000	13.0

TO-277 Outlitne Drawing



Symbol	imensions in Millimeters	
	Min	Max
A	5.2	5.8
B	3.8	4.3
C	1.7	1.9
D	6.4	6.6
E	0.8	1.0
F	1.0	1.3
G	0.2	0.45
J	1.1	1.5
K	2.4	4.0
M	1.65	1.95
N	0.7	1.3

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	3.60	0.142
B	5.35	0.211
C	1.50	0.059
D	1.85	0.073
E	4.30	0.169