

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 45Volts
FORWARD CURRENT - 10.0 Amperes

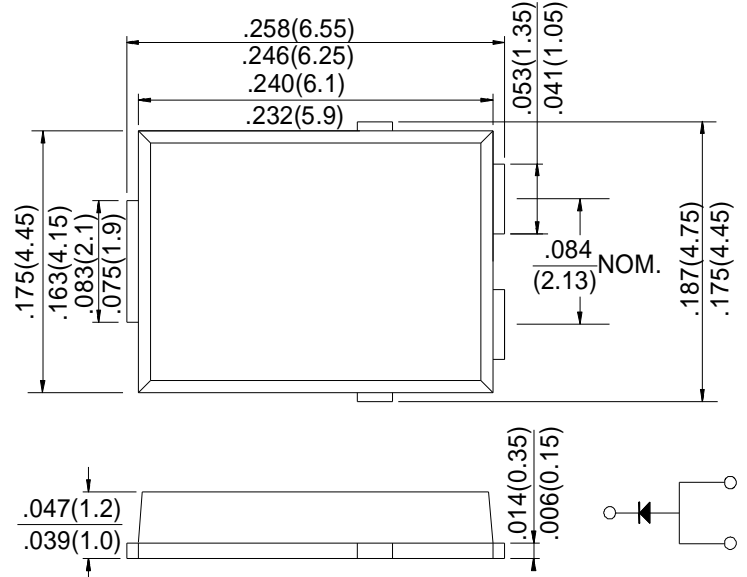
FEATURES

- Ideal for automated placement
- Low forward voltage drop, low power losses
- High efficiency Operation
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std..(Halogen Free)

MECHANICAL DATA

- Case: TO-277A (SMPC)
- Terminals: Solderable per MIL-STD-750, Method 2026

TO-277A



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS		SYMBOL	S10P45U	UNIT	
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	45	V	
Maximum RMS Voltage		V _{RMS}	31.5	V	
Maximum DC Blocking Voltage		V _{DC}	45	V	
Maximum Average Forward Rectified Current (Note 1) T _C =110°C		I _o	10	A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)		I _{FSM}	300	A	
Instantaneous Forward voltage	@I _F =3A	V _F	0.33(TYP.)		V
	@I _F =5A		0.36(TYP.)		
	@I _F =10A		0.41(TYP.)	0.45(MAX.)	
	@I _F =3A	0.25(TYP.)			
	@I _F =5A	0.30(TYP.)			
	@I _F =10A	0.39(TYP.)			
Instantaneous Reverse Current @V _R =45V	T _J =25°C	I _R	0.3 (MAX.)		mA
	T _J =125°C		9.1 (TYP.)		mA
Typical Thermal Resistance,Junction to Ambient (Note 1)		R _{θJA}	60	°C/W	
Typical Thermal Resistance,Junction to Case (Note 1)		R _{θJC}	8	°C/W	
Operating Junction Temperature		T _J	-55 to +150		°C
Storage Junction Temperature		T _{STG}	-55 to +150		°C

Note: 1. Mounted on 50 cm² FR-4 PCB.

FIG.1-FORWARD CURRENT DERATING CURVE

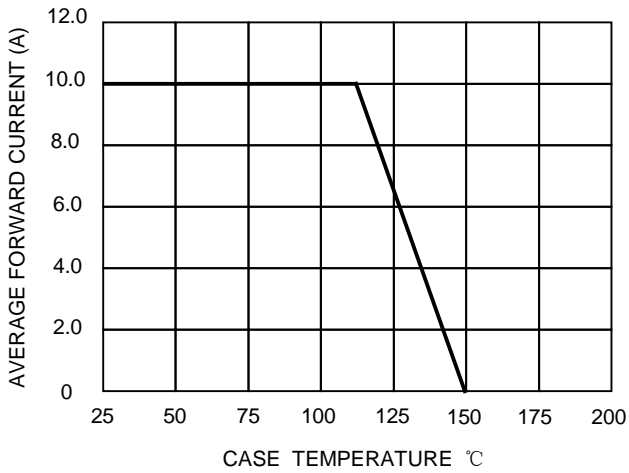


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

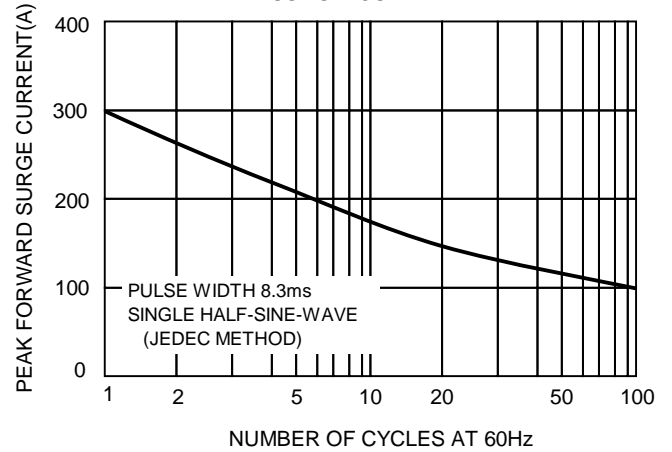


FIG.3-TYPICAL REVERSE CURRENT

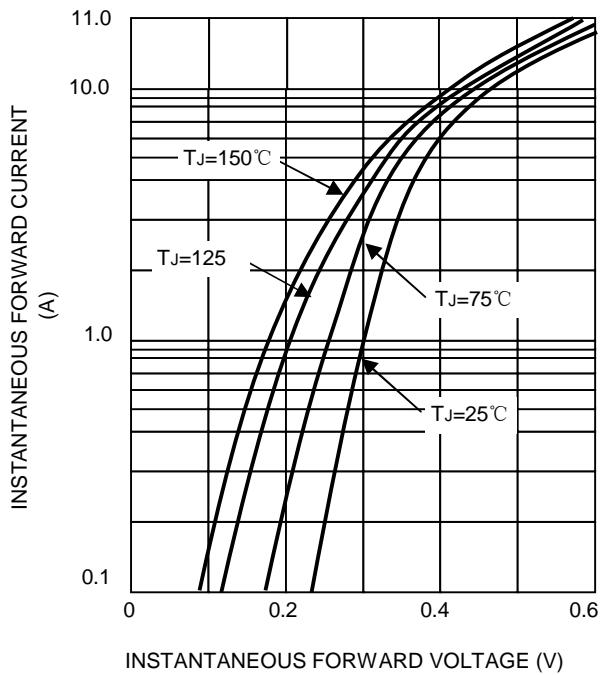


FIG.4-TYPICAL FORWARD VOLTAGE

