

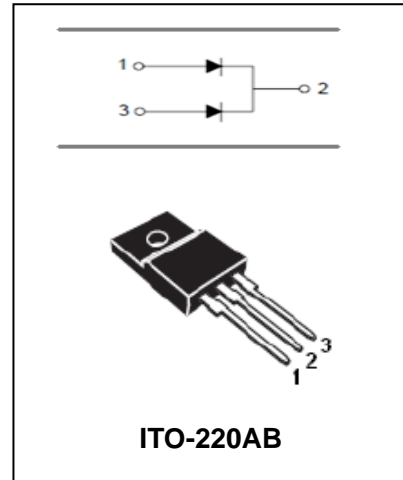
Schottky Barrier Rectifiers STSDF1030CT---STSDF1060CT

FEATURES

- Metal-Semiconductor Junction with Guard Ring.
- Epitaxial Construction.
- Low Forward Voltage Drop, Low Switching Losses.
- High Surge Capability.
- For use in low voltage, high frequency Inverters, free wheeling, and polarity protection applications.
- The Plastic Material Carries U/L Recognition 94V-0.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	STSDF1030CT	STSDF1036CT	STSDF1040CT	STSDF1046CT	STSDF1050CT	STSDF1060CT	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	30	35	40	45	50	60	V
V_{RMS}	RMS Voltage	21	25	28	32	35	42	V
V_{DC}	DC Blocking Voltage	30	35	40	45	50	60	V
$I_{F(AV)}$	Average Forward Rectified Current @ $T_A=100^{\circ}C$	10						A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-wave Superimposed on rated load	175						A
$R_{\theta JC}$	Typical Thermal Resistance(Note1)	5.0						$^{\circ}C/W$
T_j T_{stg}	Operating Junction and Storage Temperature Range	-55 to +150						$^{\circ}C$

Note1. Thermal Resistance Junction to Case.

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ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter S	ymbol	Test conditions	STSDF1030CT- STSDF1045CT	STSD F1050CT- STSD F1060CT	UNIT
			MAX		
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25^\circ\text{C}$ $V_R=V_{RRM}, T_A=100^\circ\text{C}$	0.5 50		mA
Forward Voltage	V_F	$I_F=5\text{A}$	0.60	0.70	V

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

FIG.1 – PEAK FORWARD SURGE CURRENT

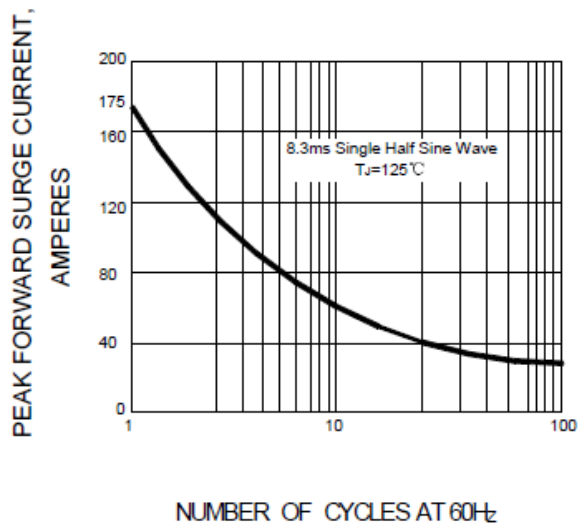


FIG.2 – FORWARD DERATING CURVE

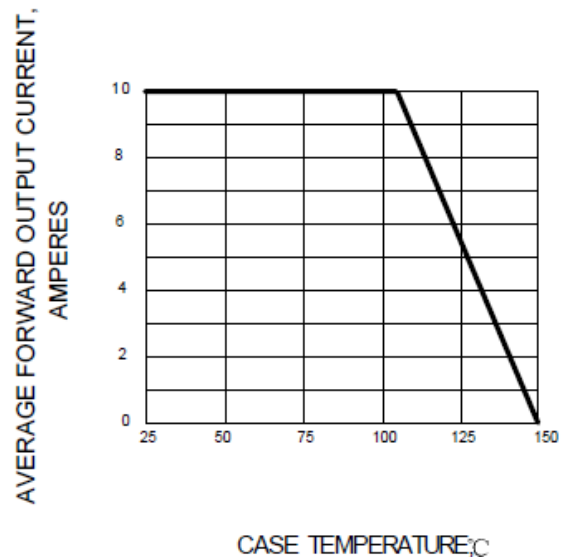


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

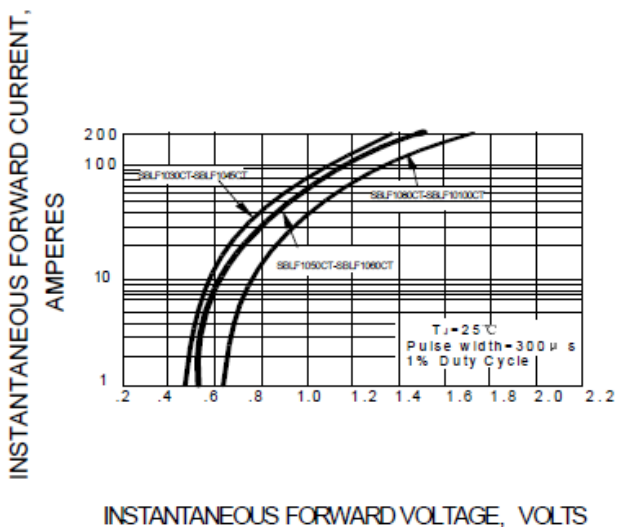
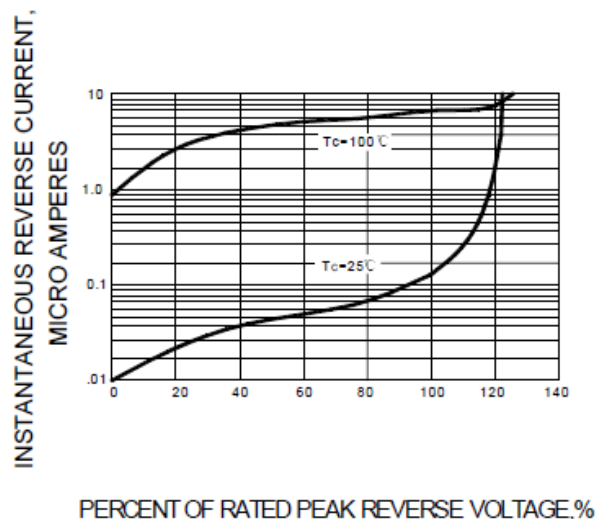


FIG.4 – TYPICAL REVERSE CHARACTERISTIC



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PACKAGE OUTLINE

Plastic surface mounted package

ITO-220AB

