Ordering number : ENA1635A

SBT700-06RH

Schottky Barrier Diode

60V, 70A, V_F; 0.66V Dual To-3PF-3L Cathode Common

ON Semiconductor®

http://onsemi.com

Applications

- High frequency rectification (switching regulators, converters, choppers)

Features

- Guaranteed up to Tj=150°C
- Fast reverse recovery time
- High reliability due to highly reliable planar structure
- Low forward voltage (V_F max=0.66V)
- Low switching noise

Specifications

Absolute Maximum Ratings at Ta=25°C

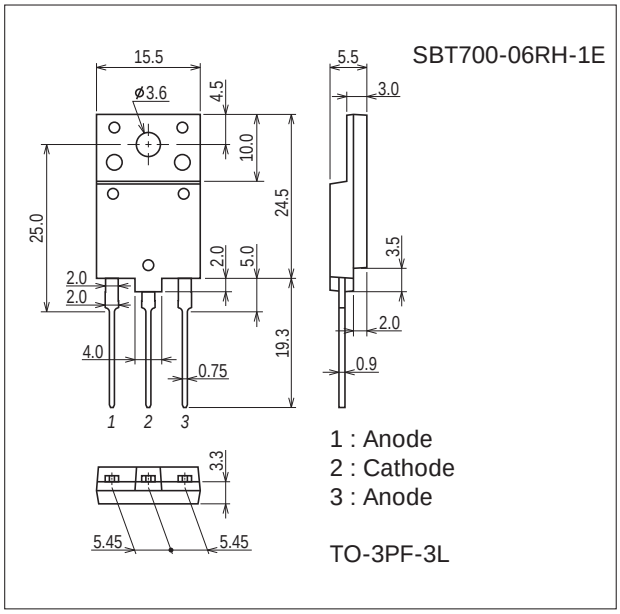
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		60	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		66	V
Average Output Current	I_O	50Hz resistive load, Sine wave Tc=44°C	70	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	200	A
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

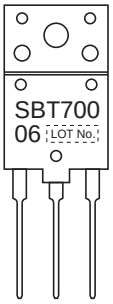
7538A-003



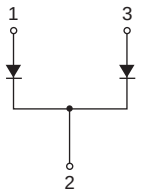
Ordering & Package Information

Device	Package	Shipping	memo
SBT700-06RH-1E	TO-3PF-3L SC-94	30pcs./tube	Pb-Free

Marking



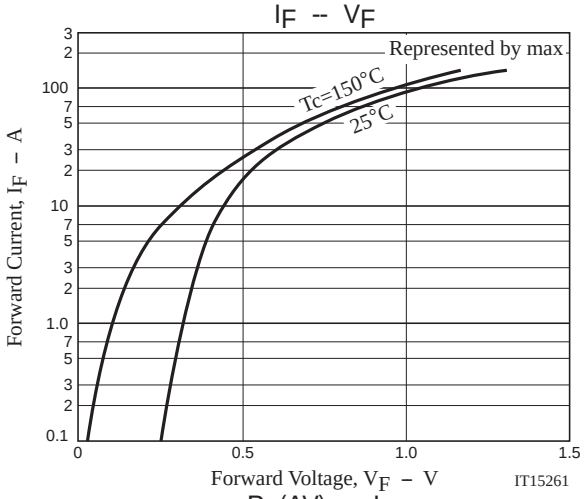
Electrical Connection

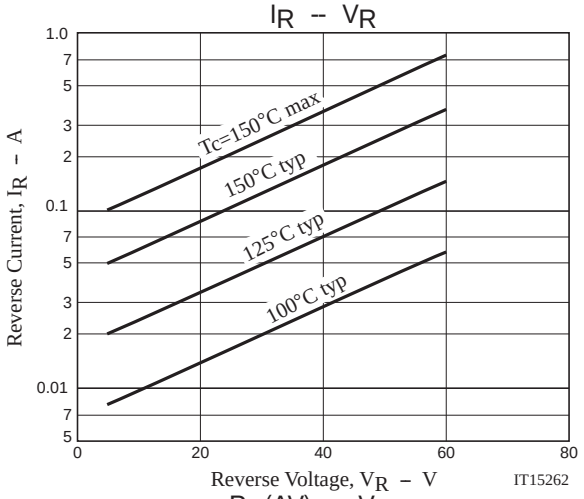


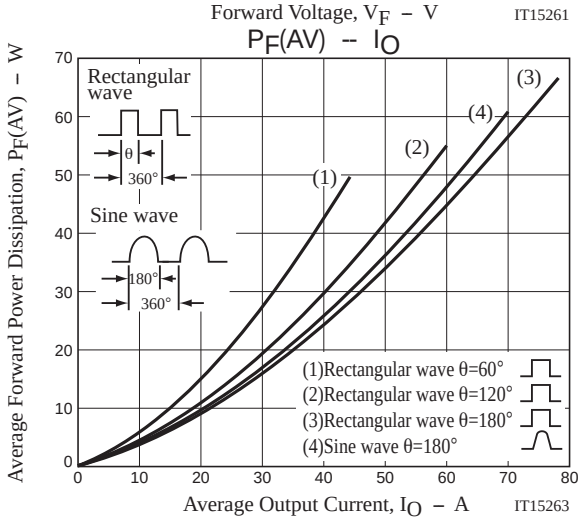
Electrical Characteristics at Ta=25°C

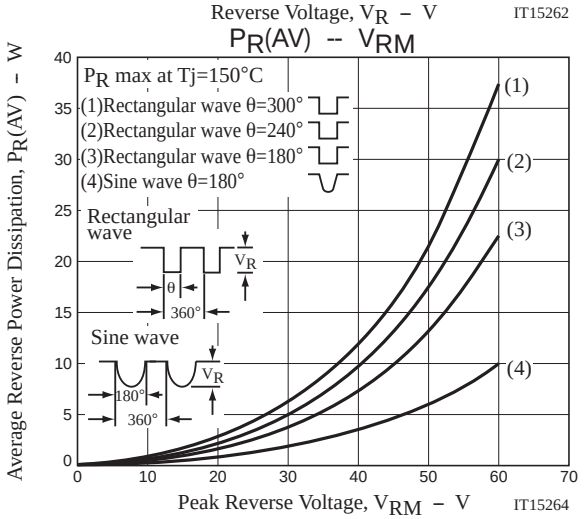
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=10mA, Tc=25°C *	60			V
Forward Voltage	V_F	I_F=30A, Tc=25°C *			0.66	V
Reverse Current	I_R	V_R=30V, Tc=25°C *			1	mA
Interterminal Capacitance	C	V_R=10V, Tc=25°C *, f=100kHz		1400		pF
Thermal Resistance	Rth(j-c)	Junction-Case : Smoothed DC			1.5	°C / W

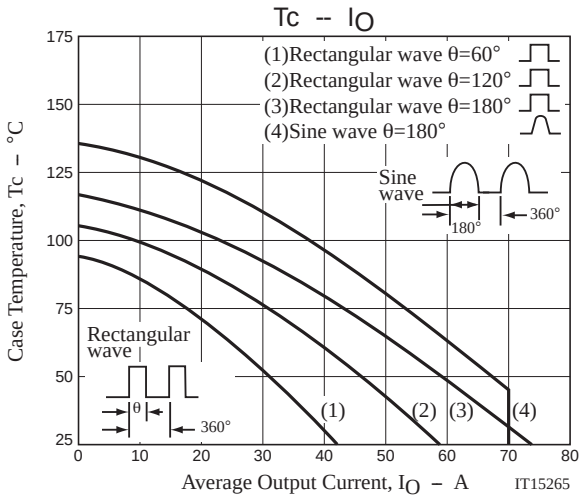
Note) * : Value per element.

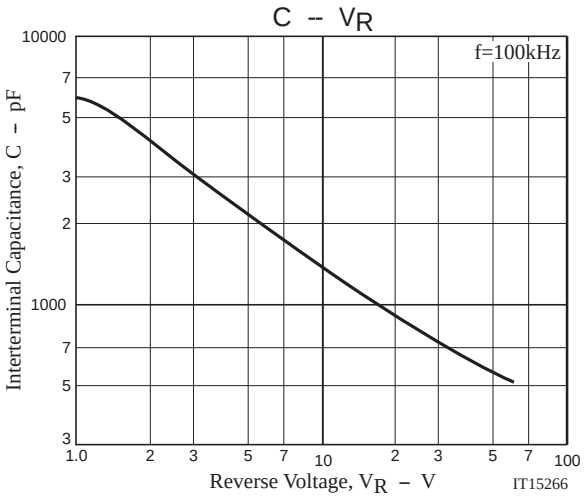


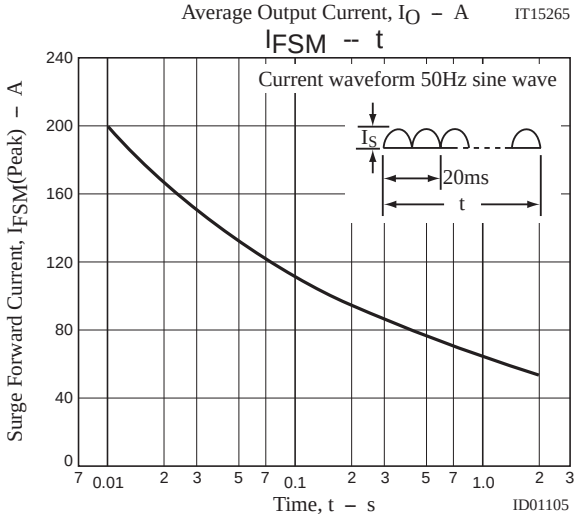


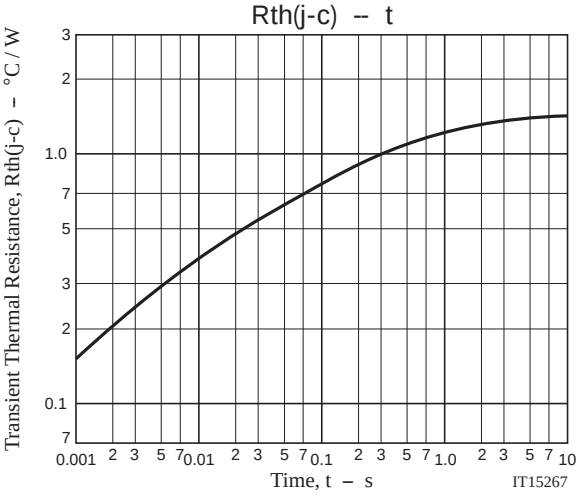





Tc -- IO
(1)Rectangular wave θ=60°
(2)Rectangular wave θ=120°
(3)Rectangular wave θ=180°
(4)Sine wave θ=180°
Sine wave
180°
360°
Rectangular wave
θ
360°
(1)
(2)
(3)
(4)
Case Temperature, Tc – °C
Average Output Current, IO – A
IT15265


C -- VR
f=100kHz
Interterminal Capacitance, C – pF
Reverse Voltage, VR – V
IT15266


IFSM -- t
Current waveform 50Hz sine wave
IS
20ms
t
Surge Forward Current, IFSM(Peak) – A
Time, t – s
ID01105


Rth(j-c) -- t
Transient Thermal Resistance, Rth(j-c) – °C / W
Time, t – s
IT15267

Outline Drawing

SBT700-06RH-1E