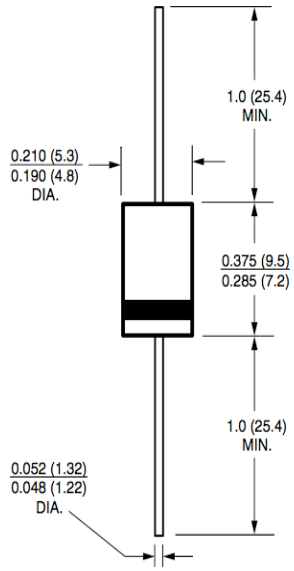
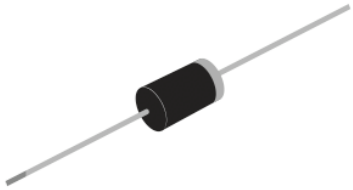
5.0 Amp Schottky Barrier Rectifiers





DO-201AD

FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability
* Epitaxial construction

MECHANICAL DATA

Case: DO-201AD,

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
* Mounting position: Any
* Weight: 1.10 grams(Approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

		SB52	SB53	SB54	SB55	SB56	
Device marking code		SB52	SB53	SB54	SB55	SB56	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V_{RWS}	14	21	28	35	42	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	V
Maximum average forward rectified current at T_L=90℃	$I_{F(AV)}$	5					A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	100					A

		SB52	SB53	SB54	SB55	SB56	
Device marking code		SB52	SB53	SB54	SB55	SB56	UNITS
Maximum instantaneous forward voltage at I_{FM}=1.0A (NOTE1)	V_F	0.55			0.7		V
Maximum DC reverse current TJ=25℃	I_R	0.5					mA
At rated DC blocking voltage TJ=125℃		20					

Thermal characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	28	°C/W
	Rthjl	20	

Notes:

(1) L = 10mm

RATING AND CHARACTERISTIC CURVES

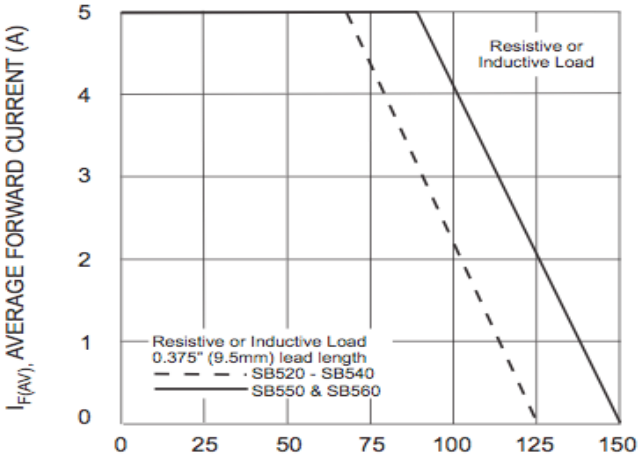


Fig. 1 Forward Current Derating Curve

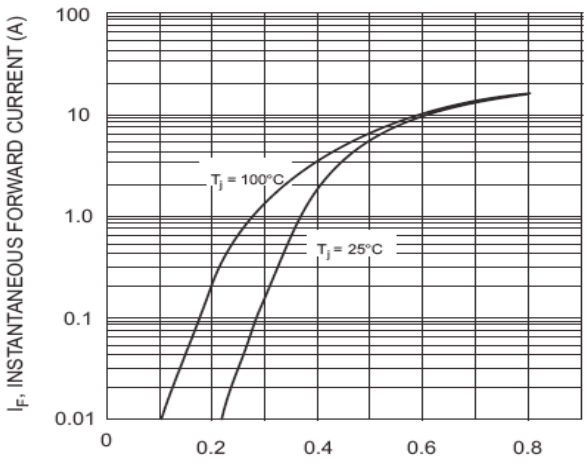


Fig. 2 Typical Forward Characteristics, SB502 - SB504

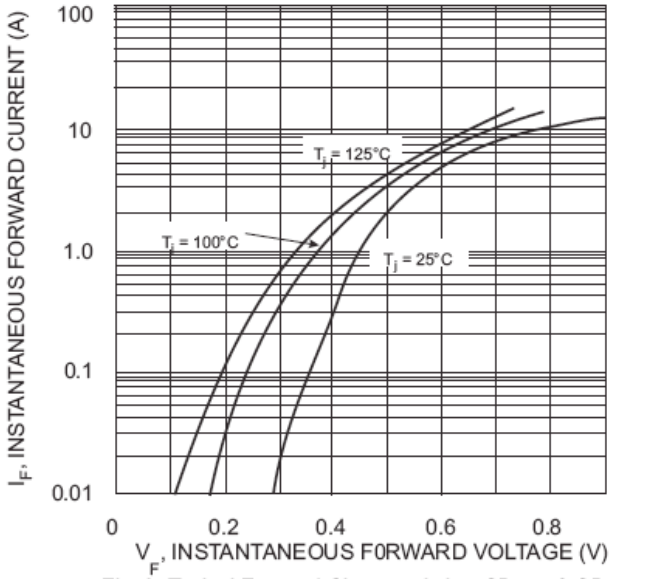


Fig. 3 Typical Forward Characteristics, SB505 & SB506

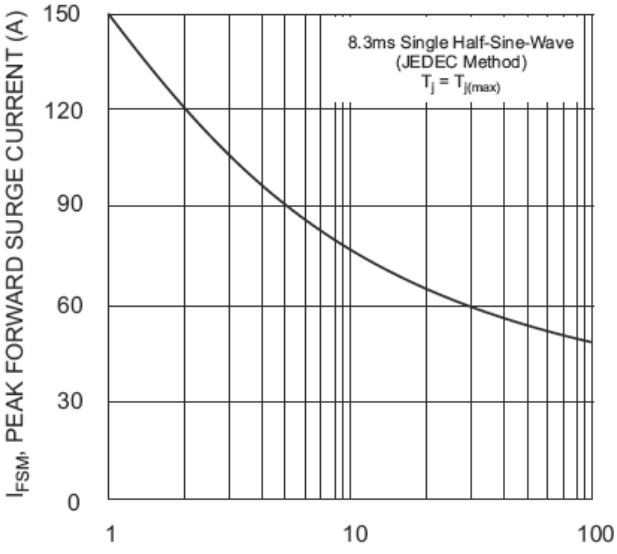


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current

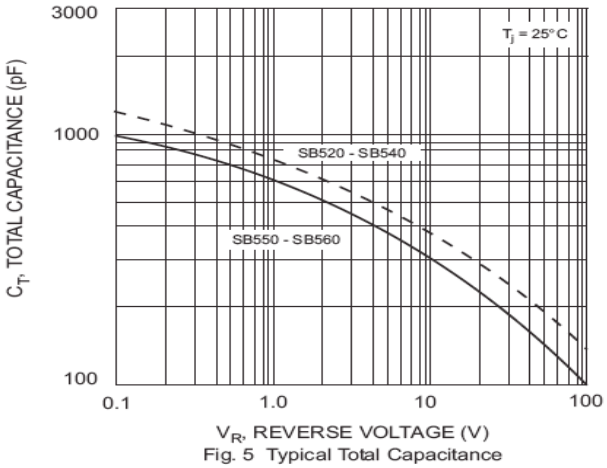


Fig. 5 Typical Total Capacitance