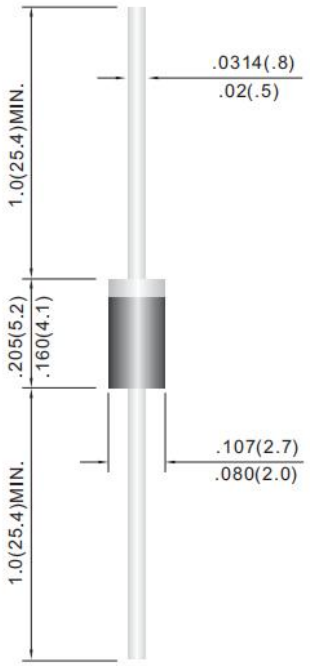
Super Fast Recovery Diode

Parameter	Value	Unit
V_{RRM}	400~1000	V
$I_{F(AV)}$	1.0	A

DO-41



Features

- Fast switching for high efficiency
- Low forward voltage drop
- Low leakage current
- High forward surge capability

Applications

For use in fast switching rectification of power supply, inverters, converters and freewheeling diodes for consumer and telecommunication.

Electrical Characteristics(at TJ = 25℃ unless otherwise specified)

Parameter	Symbol	BA157	BA158	BA159	Units
Maximum repetitive peak reverse voltage	V_{RRM}	400	600	1000	V
Maximum RMS voltage	V_{RMS}	280	420	700	V
Maximum DC blocking voltage	V_{DC}	400	600	1000	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at TA=55℃	$I_{F(AV)}$	1.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30			A
Maximum forward voltage at 1.0A	V_F	1.3			V
Maximum DC Reverse Current Ta=25℃ at Rated DC Blocking Voltage Ta=100℃	I_R	5.0 500			uA
Maximum Reverse Recovery Time (Note [1])	T_{RR}	150		250	ns
Typical Junction capacitance (Note [2])	C_J	12			pF
Typical Thermal Resistance (Note [3])	$R_{\theta JA}$	41			℃/ W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to+150			℃

NOTES:
1. Reverse Recovery Test Conditions: IF=5A, IR=1A, Irr=25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length with both leads equally heat sink.

Typical characteristics

Fig 1. Forward Current Derating Curve

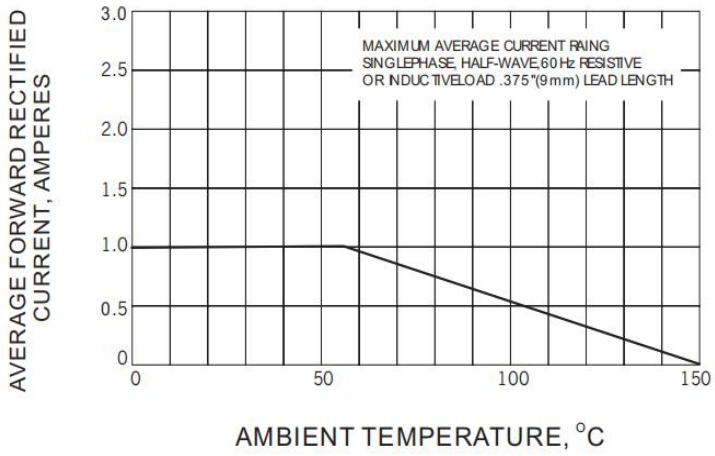


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current

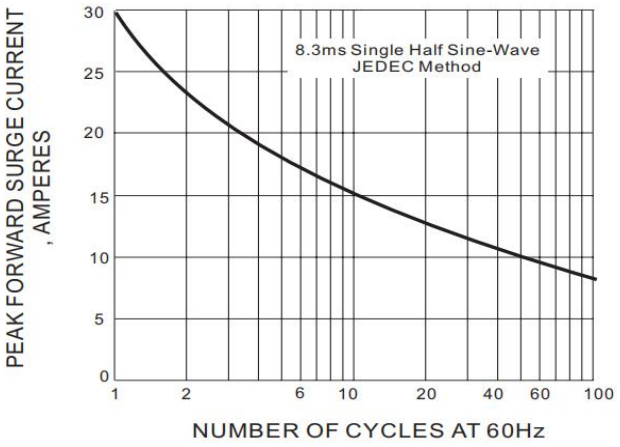


Fig 3. Typical Instantaneous Forward Characteristics

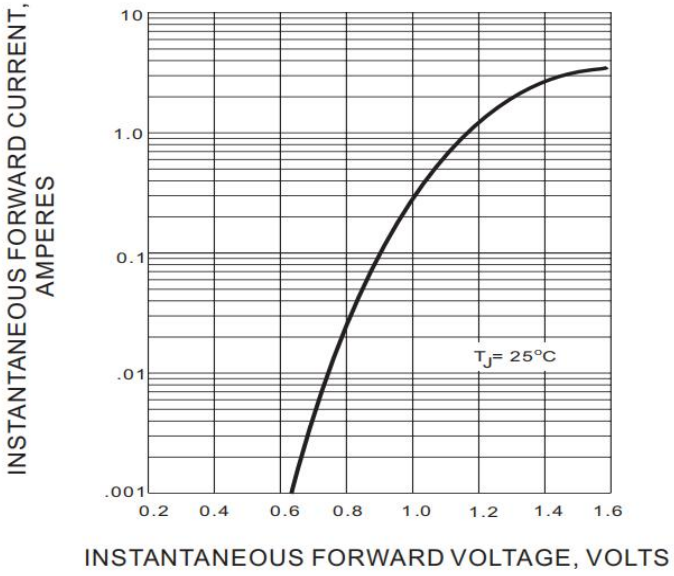
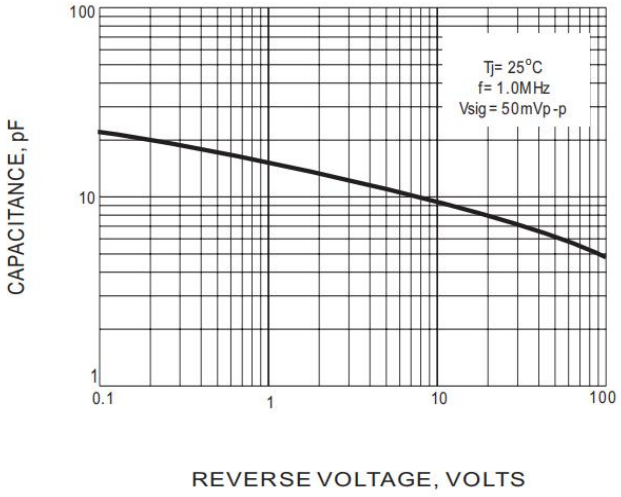


Fig 4. Typical Junction Capacitance



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