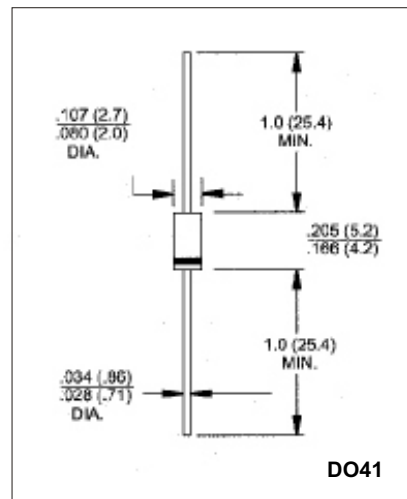


■ Features

- Low leakage current
- Excellent stability
- Guaranteed avalanche energy absorption capability
- High maximum operating temperature



DO41

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
repetitive peak reverse voltage	V _{RRM}	1000	V
continuous reverse voltage	V _R	1000	V
average forward current *1	I _{F(AV)}	1.00	A
average forward current *2	I _{F(AV)}	0.65	A
repetitive peak forward current	I _{FRM}	10.0	A
non-repetitive peak forward current *3	I _{FSM}	30	A
non-repetitive peak reverse avalanche energy *4	E _{RSM}	10	mJ
storage temperature	T _{stg}	-65 to +175	°C
junction temperature	T _j	-65 to +175	°C
thermal resistance from junction to tie-point (lead length = 10 mm)	R _{th j-tp}	46	°C/W
thermal resistance from junction to ambient *5	R _{th j-a}	100	°C/W

*1 T_{tp} = 85 °C; lead length = 10 mm;

*2 T_{amb} = 60 °C; PCB mounting, averaged over any 20 ms period

*3 t = 10 ms half sine wave; T_j = T_{j max} prior to surge; V_R = V_{RRMmax}

*4 I_R = 400 mA; T_j = T_{j max} prior to surge; inductive load switched off

*5 Device mounted on an epoxy-glass printed-circuit board, 1.5 mm thick; thickness of Cu-layer ≥ 40 μm,

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 1\text{ A}; T_j = T_{j\text{max}}$			1.3	V
Reverse avalanche breakdown voltage	$V_{(BR)R}$	$I_R = 0.1\text{ mA}$	1100			V
Reverse current	I_R	$V_R = V_{RRM\text{max}}$			5	μA
		$V_R = V_{RRM\text{max}}; T_j = 165^\circ\text{C}$			150	
Reverse recovery time	t_{rr}	$I_F = 0.5\text{ A}$ to $I_R = 1\text{ A};$ measured at $I_R = 0.25\text{ A}$			75	ns
Diode capacitance	C_d	$f = 1\text{ MHz}; V_R = 0\text{ V}$		40		pF
Maximum slope of reverse recovery current	dI_R/dt	when switched from, $I_F = 1\text{ A}$ to $V_R \geq 30\text{ V}$ and $dI_F/dt = -1\text{ A}/\mu\text{s}$			6	$\text{A}/\mu\text{s}$