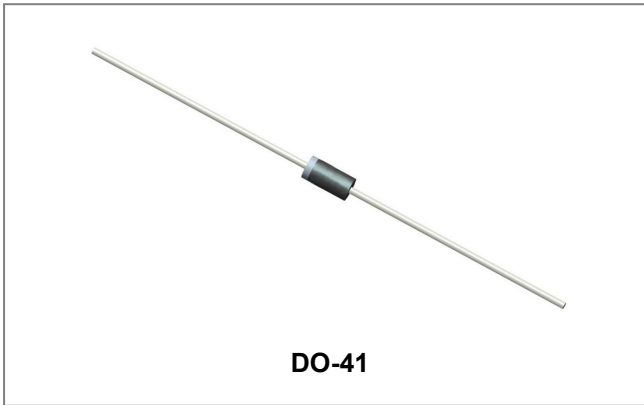


10DQ03 THRU 10DQ06 SCHOTTKY RECTIFIER



Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Green Products in Compliance with the RoHS Directive
- Terminals finish: Tin Lead-free plated
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounce, 0.34 grams

Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristics	Symbol	10DQ03	10DQ04	10DQ05	10DQ06	Units
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	50	60	V
Maximum DC blocking voltage	V_{DC}					
Maximum RMS voltage	V_{RMS}	21	28	35	42	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_L=100^{\circ}\text{C}$	$I_{(AV)}$	1.0				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40				A
Maximum instantaneous forward voltage at 1.0A	V_F	0.55		0.70		V
Maximum DC reverse current $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage $T_A=100^{\circ}\text{C}$	I_R		0.5			mA
			10			
Typical junction capacitance (Note 1)	C_J	110		80		pF
Typical thermal resistance junction to lead	$R_{\theta JL}$	15				$^{\circ}\text{C}/\text{W}$
Typical thermal resistance junction to ambient(Note 2)	$R_{\theta JA}$	50.0				$^{\circ}\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +125				$^{\circ}\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B mounted.

Ratings and Characteristics Curves

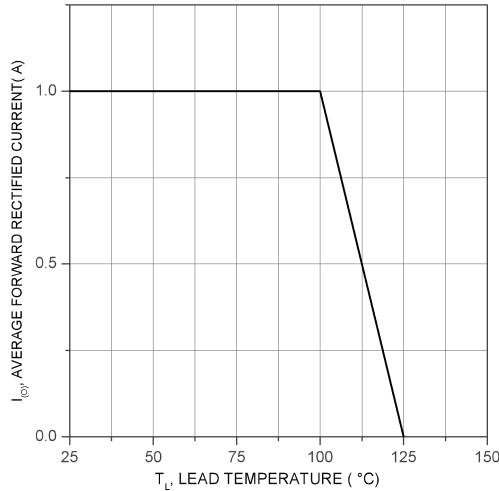


Fig.1 Forward Current Derating Curve

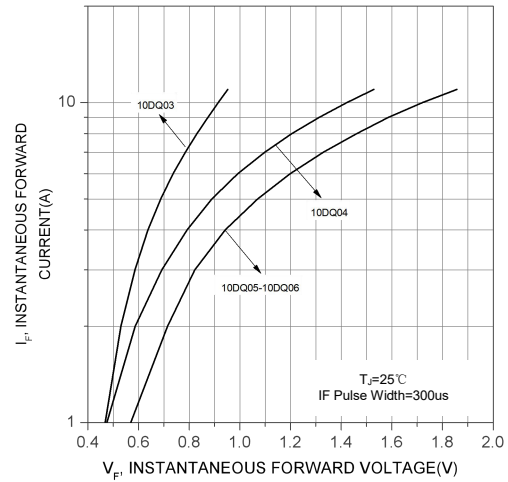


Fig.2 Typical Forward Characteristics

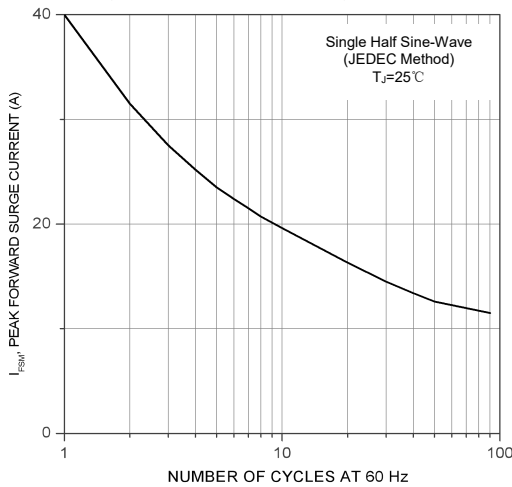


Fig. 3 Max. Non-Repetitive Peak Forward Surge Current(A)

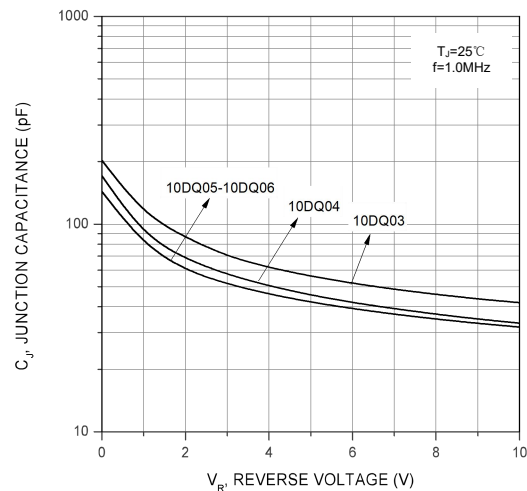


Fig.4 Typical Junction Capacitance

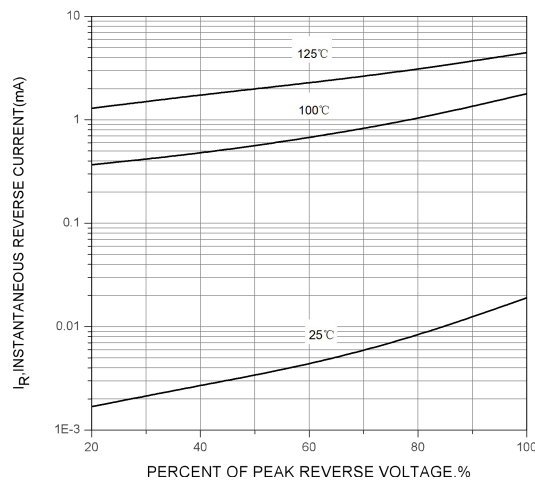
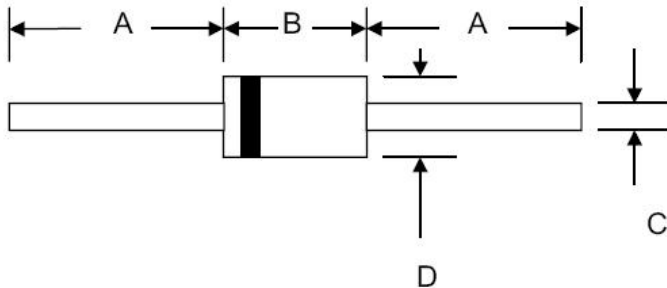


Fig.5 Typical Reverse Characteristics

Mechanical Dimensions DO-41



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	4.06	5.21	0.160	0.205
C	0.71	0.864	0.028	0.034
D	2.00	2.72	0.079	0.107

Ordering Information

Device	Package	Shipping
10DQ03 THRU 10DQ06	DO-41(Pb-Free)	5000pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

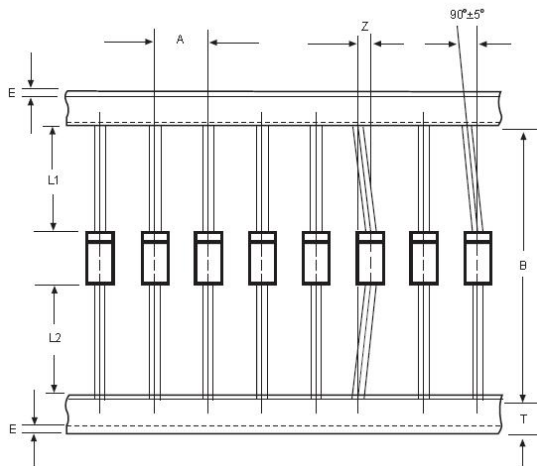


Where XXXXX is YYWWL

10DQ03 = Part Name
SSG = SSG
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification DO-41



SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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