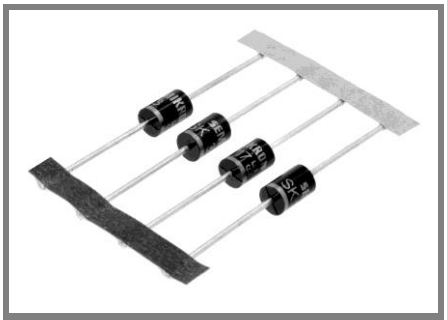
SK 3M16



Axial Lead Diode

Fast Recovery Rectifier Diode

SK 3M16

Features

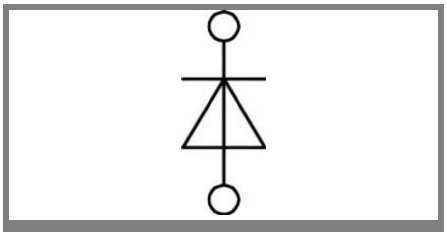
- Short and soft recovery time
- Blocking voltage up to 1600 V
- Taped for automatic insertion
- Available with formed leads on request
- Plastic material meets UL 94V-0 flammability classification

Typical Applications

- Free-wheeling diodes
- Inverter / SMPS
- TV sets
- Snubber and clamping diodes

Absolute Maximum Ratings				
Symbol	**Conditions**		**Values**	**Units**
Chip				
I_{FAV}	L = 10mm; sin. 180°	T_r = 71 °C	3,4	A
		T_r = 96 °C	2,5	A
I_{FRMS}	maximum value for continuous op.		6,3	A
I_{FSM}	8,3 … 10ms	T_j = 25°C	140	A
		T_j = 150°C	120	A
i²t	8,3 … 10ms	T_j = 25°C	98	A²s
		T_j = 150°C	72	A²s
V_{RSM}			1600	V
V_{RRM}			1600	V
T_j			-40 … 150	°C
Case				
T_{stg}			-40 … 150	°C
T_{sold}	Max. 10s; L > 9mm		250	°C
V_{isol}			-	V

Characteristics					
Symbol	**Conditions**	**min.**	**typ.**	**max.**	**Units**
Chip					
V_F	T_{vj} = 25°C; I_F = 10A			1,45	V
$V_{(TO)}$	T_{vj} = 150°C			0,95	V
r_T	T_{vj} = 150°C			40	mΩ
I_{RD}	T_{vj} = 25°C, V_{RD} = V_{RRM}			4	µA
t_{rr}	T_{vj} = 25°C, I_F = I_R = 1A			1,5	µs
$R_{th(j-r)}$	L = 10mm			18	K/W
$R_{th(j-a)}$	PCB 50 x 50			60	K/W
Case					
a				5*9,81	m/s²
w				1	g
Case	1500 diodes per reel		E 34		



SK

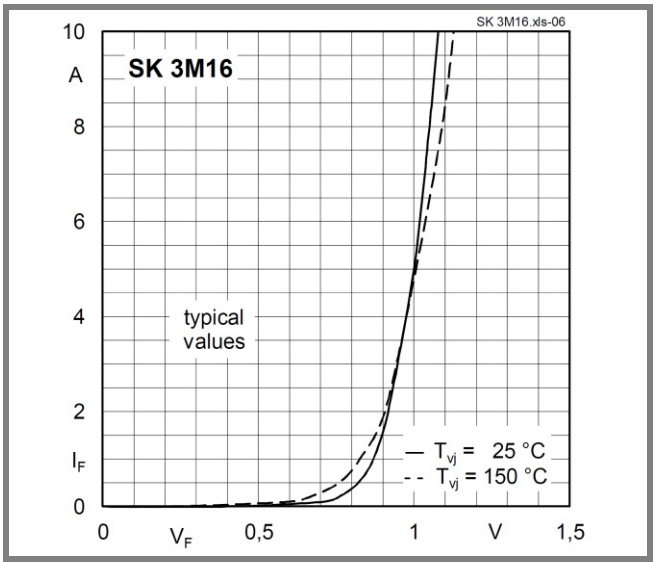


Fig. 6 Forward characteristics

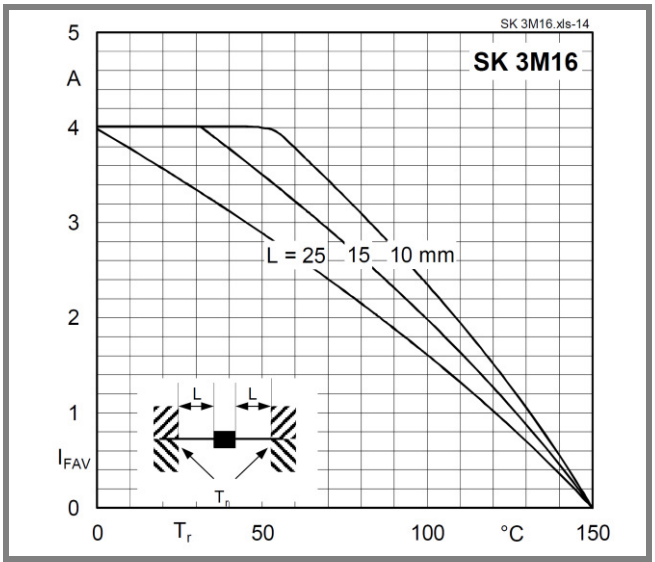


Fig. 14 Forward current vs. reference temperature

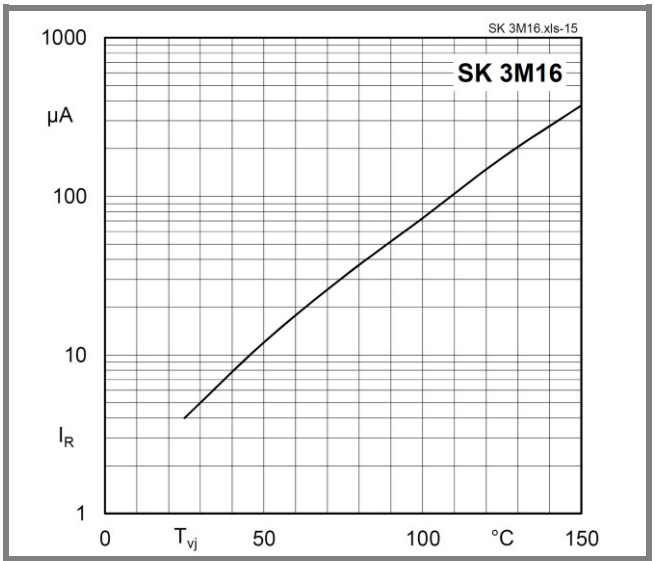


Fig. 15 Reverse current vs. junction temperature

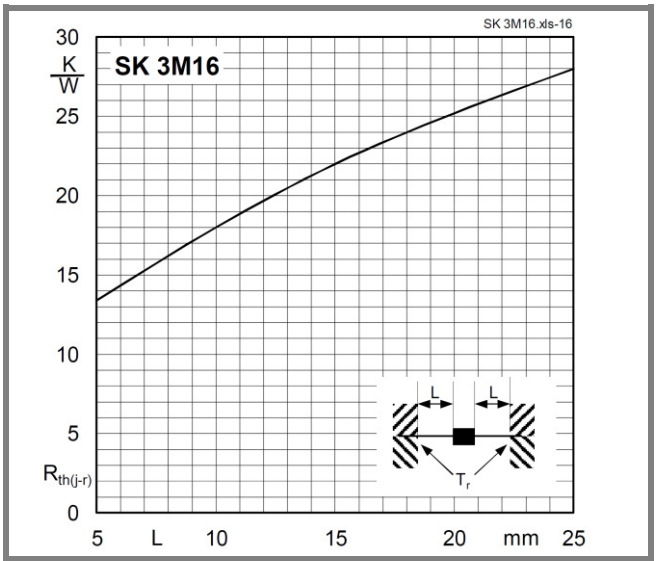
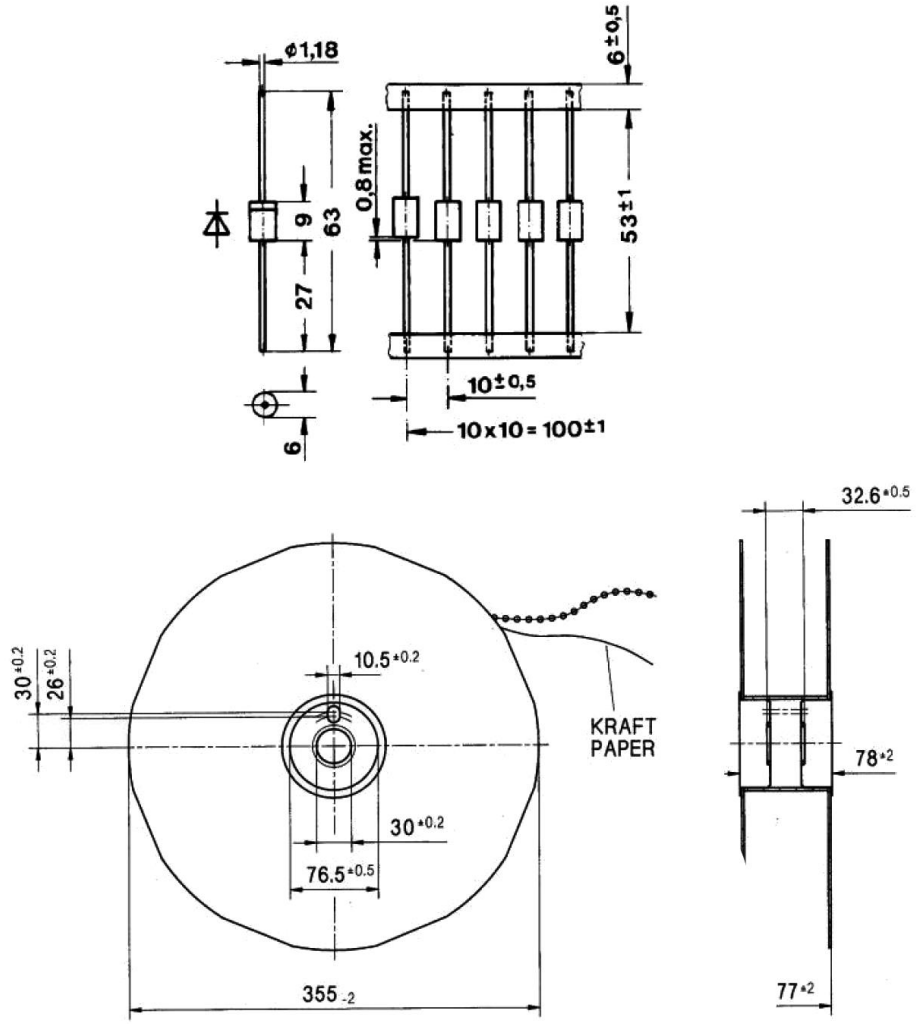


Fig. 16 Thermal resistance vs. lead lenght

Dimensions in millimeters



Case E 34

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