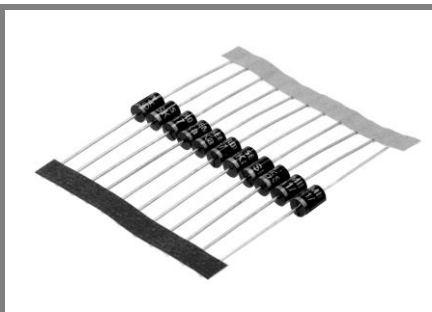


# SK 1M16



Axial Lead Diode

## Fast Recovery Rectifier Diode

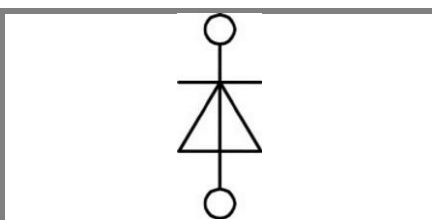
SK 1M16

### 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



SK

Absolute Maximum Ratings				
Symbol	Conditions		Values	Units
<b>Chip</b>				
$I_{FAV}$	L = 10mm; sin. 180°	$T_r = 63\text{ °C}$	1,45	A
		$T_r = 81\text{ °C}$	1,1	A
$I_{FRMS}$	maximum value for continuous op.		3	A
$I_{FSM}$	8,3 ... 10ms	$T_j = 25\text{ °C}$	60	A
		$T_j = 130\text{ °C}$	50	A
$i^2t$	8,3 ... 10ms	$T_j = 25\text{ °C}$	18	A <sup>2</sup> s
		$T_j = 130\text{ °C}$	12,5	A <sup>2</sup> s
$V_{RSM}$			1600	V
$V_{RRM}$			1600	V
$T_j$			-40 ... 130	°C
<b>Case</b>				
$T_{stg}$			-40 ... 130	°C
$T_{sold}$	Max. 10s; L > 9mm		250	°C
$V_{isol}$			-	V

Characteristics					
Symbol	Conditions	min.	typ.	max.	Units
<b>Chip</b>					
$V_F$	$T_{vj} = 25\text{ °C}; I_F = 10A$			1,5	V
$V_{(TO)}$	$T_{vj} = 130\text{ °C}$			0,95	V
$r_T$	$T_{vj} = 130\text{ °C}$			55	mΩ
$I_{RD}$	$T_{vj} = 25\text{ °C}, V_{RD} = V_{RRM}$			4	μA
$t_{rr}$	$T_{vj} = 25\text{ °C}, I_F = I_R = 1A; I_{RM} = 0,25 A$			1,3	μs
$R_{th(j-r)}$	L = 10mm			40	K/W
$R_{th(j-a)}$	PCB 50 x 50			85	K/W
<b>Case</b>					
a				5*9,81	m/s <sup>2</sup>
w				0,6	g
Case	3500 diodes per reel		E 33		

# SK 1M16

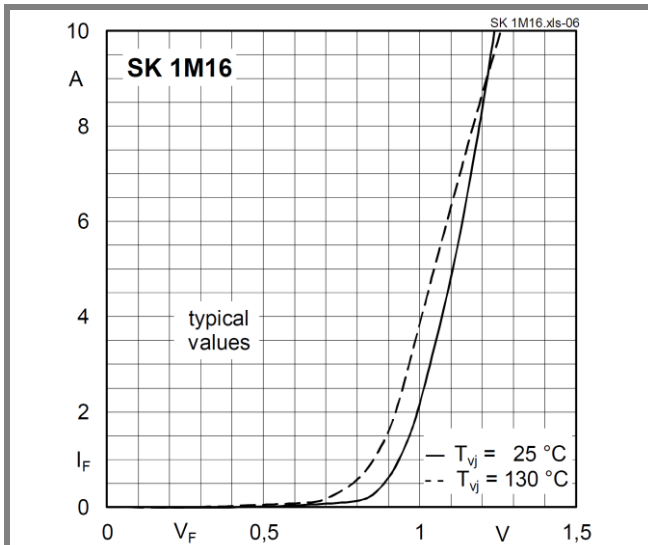


Fig. 6 Forward characteristics

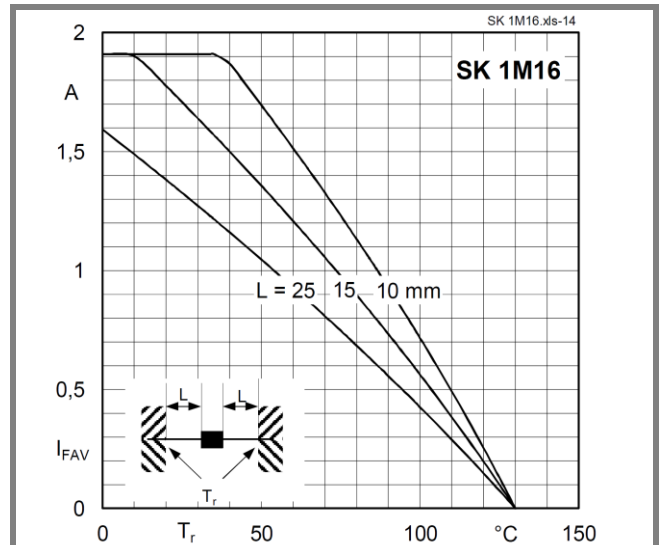


Fig. 14 Forward current vs. reference temperature

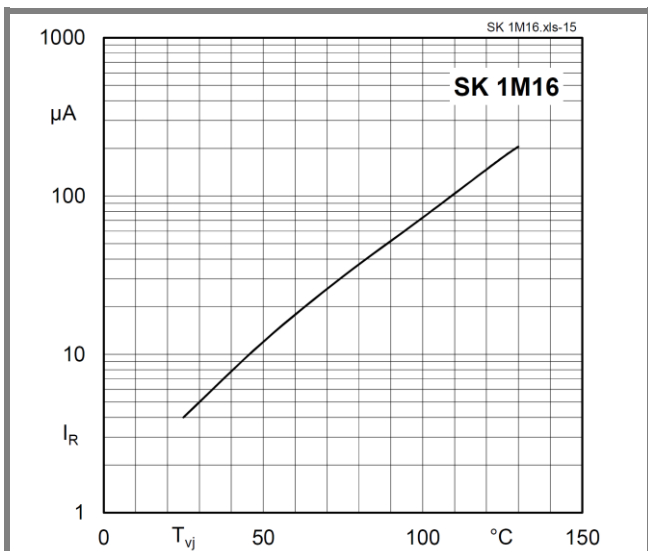


Fig. 15 Reverse current vs. junction temperature

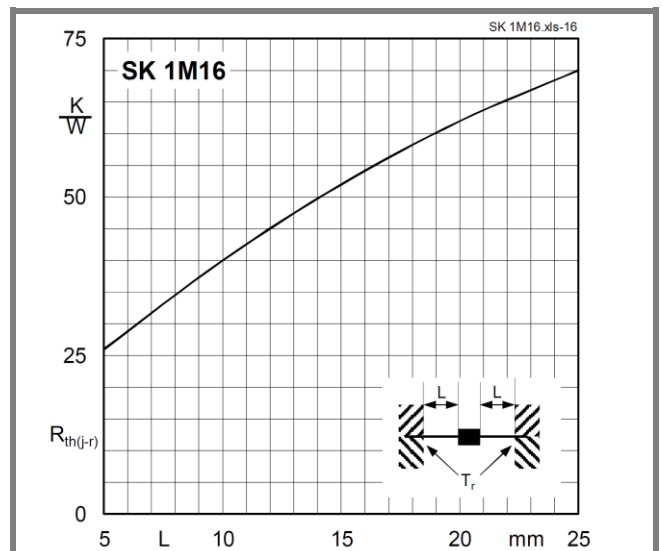
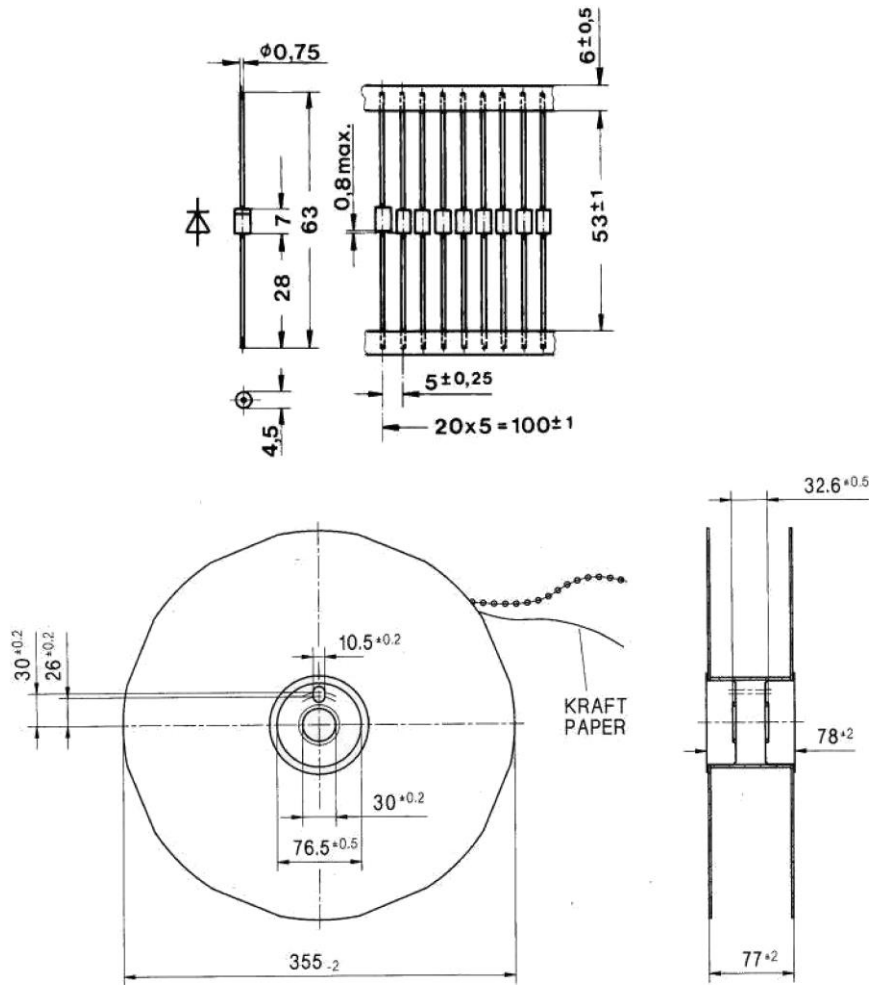


Fig. 16 Thermal resistance vs. lead length

Dimensions in millimeters



## Case E 33

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