SMD
Power Thick film Resistors
Moulded, TO-263 Package

RoHS compliant

AEC Q200

ELECTRICAL SPECIFICATIONS

Type		STP 35
Nominal Power rating P_{25}	[W]	35
Resistance range	[Ω]	0R01 … 550K
E-Series		E24
Tolerances	± [%]	1, 2, 5, 10
Temperature coefficient	[10^{-6}*K^{-1}]	±250 (±150 upon request)
Temperature range	[°C]	-55 … +175
Flammability *IEC 60695-11-5*	[s]	2 applications 30s separated by 60s

PERFORMANCE DATA

Max. working voltage *IEC60115-1 clause 2.2.16*	$[V]_{RMS}$	500
Derating linear *IEC115-1 clause 2.2.24*	[°C]	See next page
Climatic category *IEC60068-1*		55/175/56
Endurance *IEC60115-1 clause 4.25 (P_{25} 25°C, 1000h)*	±[%]	1
Short Time Overload *(2x Rated power, not to exceed 1.5x rated voltage @ 5 sec. 25º [w]/ Heat Sink)*	±[%]	0,25
High Temperature Exposure *AEC-Q200 Rev C conditions: MIL–Std–202*, method 108 *(1000[h], +175 [ºC], unpowered)*	±[%]	0,25
Temperature Cycling *IEC60068-2-14, JESTD020D*	±[%]	0,5
Moisture Resistance AEC-Q200 Rev C MIL–Std–202	±[%]	0,5
Biased Humidity AEC-Q200 Rev C, MIL–Std–202, method 103 *(1000h , 85 ºC , 85% RH)*	±[%]	1
Vibration AEC-Q200 Rev C conditions: MIL–Std–202, method 204 *(5 g´s for 20min. , 12 cycles test from 10 Hz to 2000 Hz)*	±[%]	0,5
Mechanical Shock AEC-Q200 Rev C conditions: MIL–Std–202, method 213 *(100 g´s, 6 ms, 3.75 m/s 3 shocks/direction)*	±[%]	0,5
Dielectric Withstanding Voltage *(Terminals to tab ; 60 sec, 1mA)*	$[V]_{AC}$	2000
Terminal strength AEC-Q200 Rev C conditions: AEC-Q200-006 1.8kgf, 60 s	±[%]	0,25
Resistance to soldering heat *IEC60115-1 ; IEC60068-2-58 (270°C, 10s)*	±[%]	0,5
Solderability *IEC 60068-2-20-T (230 ± 5ºC, 3sec)*	[s]	> 95% coverage
Marking		Printed in clear

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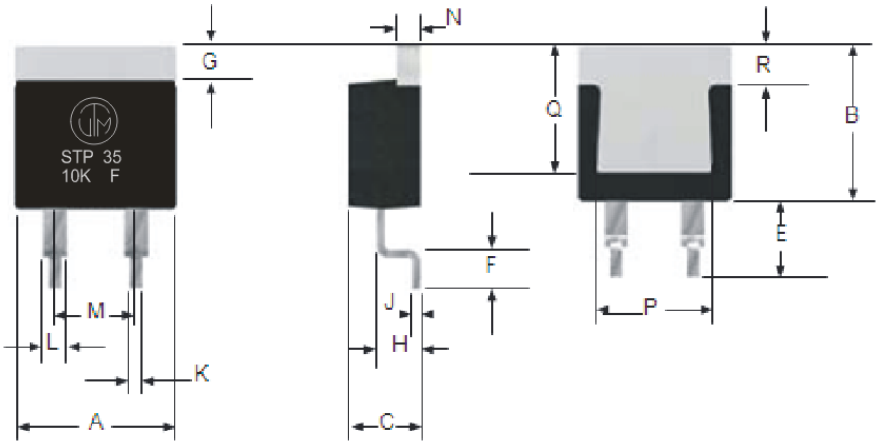
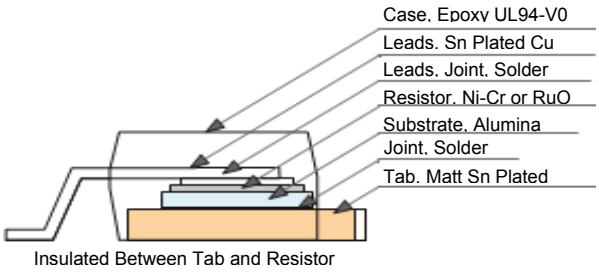
DIMENSIONS [mm]

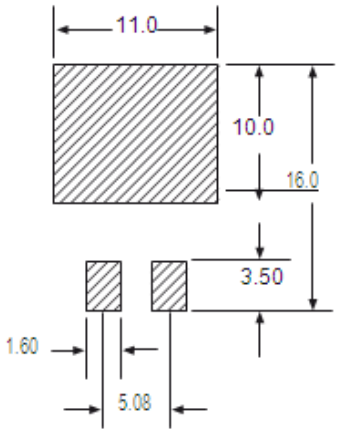


A	10.1 ±0.2
B	10.3 ±0.2
C	4.5 ±0.2
E	5.0 ±1.0
F	2.5 ±0.5
G	2.2 ±0.2
H	2.75 ±0.2
J	0.5 ±0.05
K	0.75 ±0.05
L	1.5 ±0.05
M	5.08 ±0.1
N	1.5 ±0.05
P	7.4 ±0.1
Q	8.3 ±0.2
R	2.5 ±0.2



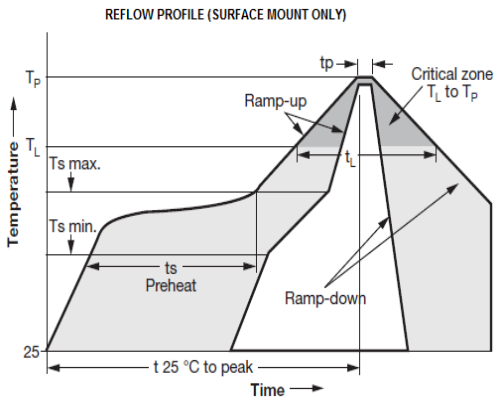
Insulated Between Tab and Resistor

Footprint recommendation for solderable contact area



Lead & Tab Material	Tin Plated Copper
Part Weight	1.5g

SOLDER REFLOW PROFILE



PROFILE	LEAD FREE
Preheat **- Temperature minimum ($T_{S\ min}$ [ºC])** **- Temperature maximum ($T_{S\ max}$ [ºC])** **- Time (min. to max) T_S [s]**	 150 200 60 to 180
Time maintained above **- Temperature (T_L [ºC])** **- Time (t_L [s])**	 270 60 to 150
Peak temperature	260
Time within 5 °C to actual peak temperature (t_p [s])	20 to 40
Ramp-down rate [ºC/s]	6 (max)
Time 25 °C to peak temperature [min]	8 (max)

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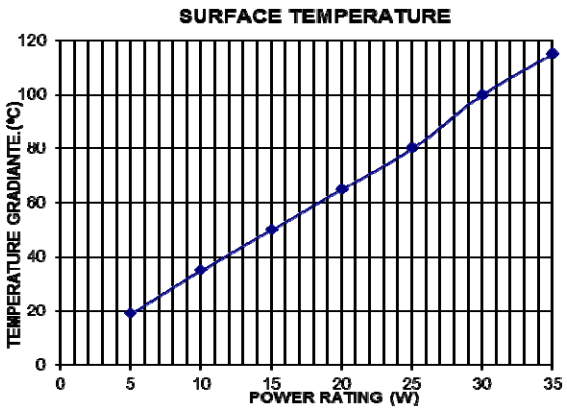
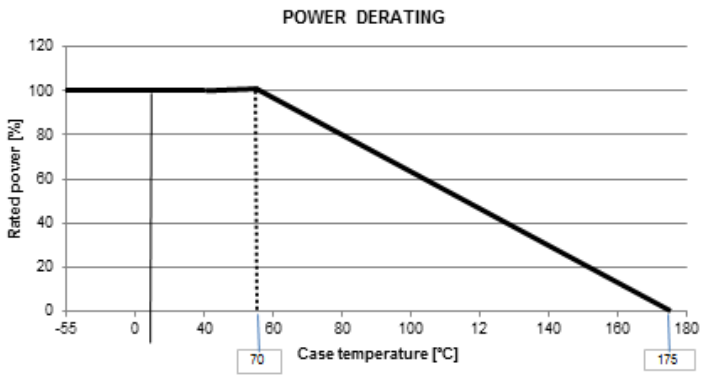
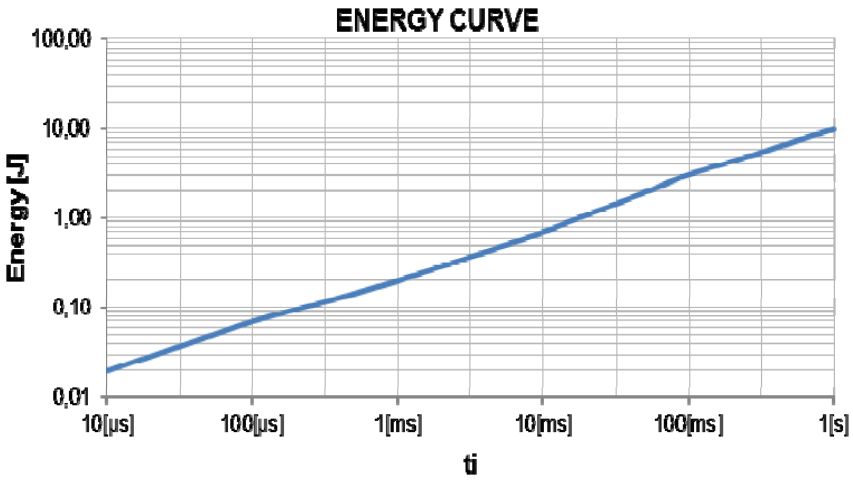
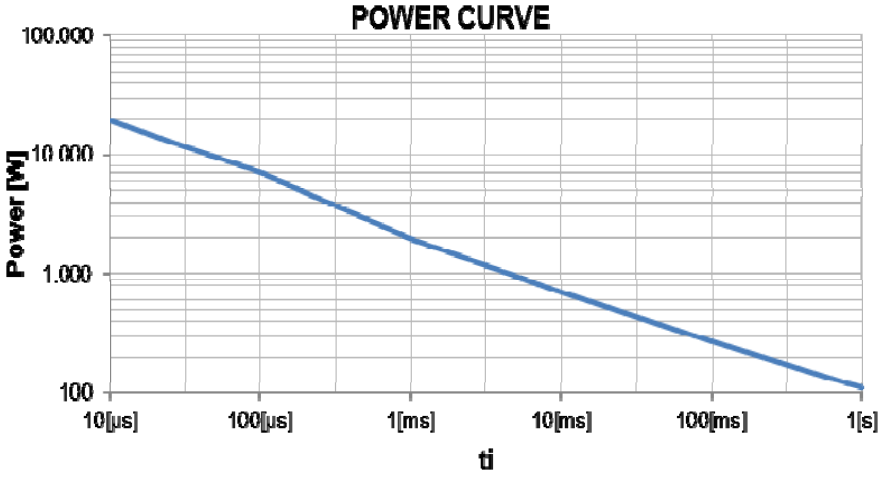
ELECTRICAL DATA









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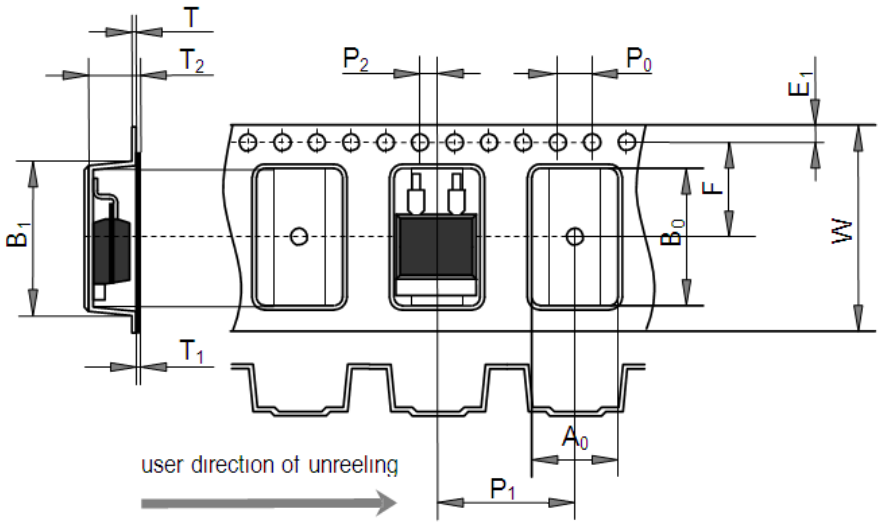
PACKAGING

Reel Packaging Data



Tape Dimensions [mm]												
Dim.	A_0	B_0	B_1	E_1	F	P_0	P_1	P_2	T	T_1	T_2	W
Nom.	10.77	16.33	17.0	1.75	11.5	4.0	16.0	2.0	0.4	0.05	6.07	24.0
Tol.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	----	0.1	+0.3/-0.1

Reel dimensions [mm]

Outer Diam.	330
Inner Diam.	100
Width	27.4 (max.)
Qty.	500 [pcs/reel]

ORDERING EXAMPLE

STP35	F	K	U	13	10K
Type	*Tolerance*	*Blister tape reel*	*TC*	*reel diameter*	*R-Value*

Tolerance		TC	
± 0,5 [%]	D	150 [10^{-6}*K^{-1}]	T
± 5 [%]	J	250 [10^{-6}*K^{-1}]	U
± 10 [%]	K		

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