



January 15, 2010

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**END OF LIFE NOTICE**

PRODUCTS: SURFACE MOUNT FILM CAPACITORS

NIC PRODUCT SERIES: NSPC

THE FOLLOWING IS NOTICE THAT THE NSPC SERIES OF SURFACE MOUNT FILM CAPACITORS IS BEING DISCONTINUED.

LAST ORDER DATE: MARCH 31, 2010

LAST DELIVERY DATE: JUNE 30, 2010

REASON FOR TERMINATION: Transition to part with better solderability characteristics

ALTERNATIVE PART NUMBERS: Suggest NSHC series as is PPS film capacitor with same electrical specifications to the NSPC series. Dimensional comparisons, shown below, include component Length (L), Width (W), Height (H) and Termination Width (P).

EOL NSPC Part Number	Case Size (L x W x H)	Suggested Replacement Part Number (NSHC series)	Case Size (L x W x H)	Electrical Specifications	Land Pattern Dimensions	Reflow Profile
NSPC101G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC101G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC101J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC101J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC121G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC121G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC121J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC121J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC123G16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC123G16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC123J16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC123J16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC123G50TRC1F	3.2mm x 2.5mm x 1.0mm P=0.65	NSHC123G50TRC1F	3.2mm x 2.5mm x 1.1mm P=0.65	same	same*	same
NSPC123J50TRC1F	3.2mm x 2.5mm x 1.0mm P=0.65	NSHC123J50TRC1F	3.2mm x 2.5mm x 1.1mm P=0.65	same	same*	same
NSPC151G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC151G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC151J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC151J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC181G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC181G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC181J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC181J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC221G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC221G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC221J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC221J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC271G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC271G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC271J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC271J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC331G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC331G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same

EOL NSPC Part Number	Case Size (L x W x H)	Suggested Replacement Part Number (NSHC series)	Case Size (L x W x H)	Electrical Specifications	Land Pattern Dimensions	Reflow Profile
NSPC331J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC331J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC391G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC391G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC391J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC391J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC392G16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC392G16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC392J16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC392J16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC392G50TRB1F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC392G50TRB1F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC392J50TRB1F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC392J50TRB1F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC471G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC471G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC471J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC471J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC561G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC561G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC561J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC561J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC681G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC681G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC681J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC681J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC821G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC821G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC821J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC821J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC102G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC102G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC102J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC102J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC122G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC122G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC122J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC122J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC152G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC152G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC152J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC152J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC222G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC222G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC222J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC222J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC272G50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC272G50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC272J50TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC272J50TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC332G16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC332G16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC332J16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC332J16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC332G50TRB1F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC332G50TRB1F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC332J50TRB1F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC332J50TRB1F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC472G16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC472G16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC472J16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC472J16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC472G50TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC472G50TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same

EOL NSPC Part Number	Case Size (L x W x H)	Suggested Replacement Part Number (NSHC series)	Case Size (L x W x H)	Electrical Specifications	Land Pattern Dimensions	Reflow Profile
NSPC472J50TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC472J50TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC562G16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC562G16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC562J16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC562J16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC562G50TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC562G50TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC562J50TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC562J50TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC682G16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC682G16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC682J16TRA1F	2.0mm x 1.25mm x 0.8mm P=0.45	NSHC682J16TRA1F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC682G50TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC682G50TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC682J50TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC682J50TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC822G16TRA2F	2.0mm x 1.25mm x 1.0mm P=0.45	NSHC822G16TRA2F	2.0mm x 1.25mm x 1.1mm P=0.45	same	same*	same
NSPC822J16TRA2F	2.0mm x 1.25mm x 1.0mm P=0.45	NSHC822J16TRA2F	2.0mm x 1.25mm x 1.1mm P=0.45	same	same*	same
NSPC822G50TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC822G50TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC822J50TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC822J50TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC103G16TRA2F	2.0mm x 1.25mm x 1.0mm P=0.45	NSHC103G16TRA2F	2.0mm x 1.25mm x 0.9mm P=0.45	same	same*	same
NSPC103J16TRA2F	2.0mm x 1.25mm x 1.0mm P=0.45	NSHC103J16TRA2F	2.0mm x 1.25mm x 1.1mm P=0.45	same	same*	same
NSPC103G50TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC103G50TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC103J50TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC103J50TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC153G16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC153G16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC153J16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC153J16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC153G50TRC1F	3.2mm x 2.5mm x 1.0mm P=0.65	NSHC153G50TRC1F	3.2mm x 2.5mm x 1.1mm P=0.65	same	same*	same
NSPC153J50TRC1F	3.2mm x 2.5mm x 1.0mm P=0.65	NSHC153J50TRC1F	3.2mm x 2.5mm x 1.1mm P=0.65	same	same*	same
NSPC183G16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC183G16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC183J16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC183J16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC183G50TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC183G50TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC183J50TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC183J50TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC223G16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC223G16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC223J16TRB1F	3.2mm x 1.6mm x 0.8mm P=0.65	NSHC223J16TRB1F	3.2mm x 1.6mm x 0.9mm P=0.65	same	same*	same
NSPC223G50TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC223G50TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC223J50TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC223J50TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC273G16TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC273G16TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC273J16TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC273J16TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC273G50TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC273G50TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same

EOL NSPC Part Number	Case Size (L x W x H)	Suggested Replacement Part Number (NSHC series)	Case Size (L x W x H)	Electrical Specifications	Land Pattern Dimensions	Reflow Profile
NSPC273J50TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC273J50TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC333G16TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC333G16TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC333J16TRB2F	3.2mm x 1.6mm x 1.0mm P=0.65	NSHC333J16TRB2F	3.2mm x 1.6mm x 1.1mm P=0.65	same	same*	same
NSPC333G50TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC333G50TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC333J50TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC333J50TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC393G16TRB3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC393G16TRB3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC393G50TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC393G50TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC393J16TRB3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC393J16TRB3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC393J50TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC393J50TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC473G16TRB3F	3.2mm x 1.6mm x 1.4mm P=0.65	NSHC473G16TRB3F	3.2mm x 1.6mm x 1.5mm P=0.65	same	same*	same
NSPC473J16TRB3F	3.2mm x 1.6mm x 1.4mm P=0.65	NSHC473J16TRB3F	3.2mm x 1.6mm x 1.5mm P=0.65	same	same*	same
NSPC473G50TRD1F	4.8mm x 3.3mm x 1.4mm P=0.35	NSHC473G50TRD5F	4.8mm x 3.3mm x 1.5mm P=0.80	same	same*	same
NSPC473J50TRD1F	4.8mm x 3.3mm x 1.4mm P=0.35	NSHC473J50TRD5F	4.8mm x 3.3mm x 1.5mm P=0.80	same	same*	same
NSPC563G16TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC563G16TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC563J16TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC563J16TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC563G50TRD1F	4.8mm x 3.3mm x 1.4mm P=0.35	NSHC563G50TRD5F	4.8mm x 3.3mm x 1.5mm P=0.80	same	same*	same
NSPC563J50TRD1F	4.8mm x 3.3mm x 1.4mm P=0.35	NSHC563J50TRD5F	4.8mm x 3.3mm x 1.5mm P=0.80	same	same*	same
NSPC683G16TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC683G16TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC683J16TRC2F	3.2mm x 2.5mm x 1.4mm P=0.65	NSHC683J16TRC2F	3.2mm x 2.5mm x 1.5mm P=0.65	same	same*	same
NSPC683G50TRD1F	4.8mm x 3.3mm x 1.4mm P=0.35	NSHC683G50TRD5F	4.8mm x 3.3mm x 1.5mm P=0.80	same	same*	same
NSPC683J50TRD1F	4.8mm x 3.3mm x 1.4mm P=0.35	NSHC683J50TRD5F	4.8mm x 3.3mm x 1.5mm P=0.80	same	same*	same
NSPC823G16TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC823G16TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC823J16TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC823J16TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC823G50TRD2F	4.8mm x 3.3mm x 2.0mm P=0.35	NSHC823G50TRD6F	4.8mm x 3.3mm x 2.1mm P=0.80	same	same*	same
NSPC823J50TRD2F	4.8mm x 3.3mm x 2.0mm P=0.35	NSHC823J50TRD6F	4.8mm x 3.3mm x 2.1mm P=0.80	same	same*	same
NSPC104G16TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC104G16TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC104J16TRC3F	3.2mm x 2.5mm x 2.0mm P=0.65	NSHC104J16TRC3F	3.2mm x 2.5mm x 2.1mm P=0.65	same	same*	same
NSPC104G50TRD2F	4.8mm x 3.3mm x 2.0mm P=0.35	NSHC104G50TRD6F	4.8mm x 3.3mm x 2.1mm P=0.80	same	same*	same
NSPC104J50TRD2F	4.8mm x 3.3mm x 2.0mm P=0.35	NSHC104J50TRD6F	4.8mm x 3.3mm x 2.1mm P=0.80	same	same*	same
NSPC124G50TRE1F	6.0mm x 4.1mm x 1.8mm P=0.35	NSHC124G50TRE6F	6.0mm x 4.1mm x 1.9mm P=0.80	same	same*	same
NSPC124J50TRE1F	6.0mm x 4.1mm x 1.8mm P=0.35	NSHC124J50TRE6F	6.0mm x 4.1mm x 1.9mm P=0.80	same	same*	same
NSPC154G50TRE3F	6.0mm x 4.1mm x 2.4mm P=0.35	NSHC154G50TRE6F	6.0mm x 4.1mm x 1.9mm P=0.80	same	same*	same

EOL NSPC Part Number	Case Size (L x W x H)	Suggested Replacement Part Number (NSHC series)	Case Size (L x W x H)	Electrical Specifications	Land Pattern Dimensions	Reflow Profile
NSPC154J50TRE3F	6.0mm x 4.1mm x 2.4mm P=0.35	NSHC154J50TRE6F	6.0mm x 4.1mm x 1.9mm P=0.80	same	same*	same
NSPC184G50TRE4F	6.0mm x 4.1mm x 2.8mm P=0.35	NSHC184G50TRE7F	6.0mm x 4.1mm x 2.5mm P=0.80	same	same*	same
NSPC184J50TRE4F	6.0mm x 4.1mm x 2.8mm P=0.35	NSHC184J50TRE7F	6.0mm x 4.1mm x 2.5mm P=0.80	same	same*	same
NSPC224G50TRE5F	6.0mm x 4.1mm x 3.2mm P=0.35	NSHC224G50TRE8F	6.0mm x 4.1mm x 2.8mm P=0.80	same	same*	same
NSPC224J50TRE5F	6.0mm x 4.1mm x 3.2mm P=0.35	NSHC224J50TRE8F	6.0mm x 4.1mm x 2.8mm P=0.80	same	same*	same

\*While there are differences in the published land pattern dimensions for the NSHC series parts, these parts can be soldered using the land pattern dimensions published for the NSPC series parts.

→ For technical assistance with replacing NSPC series with NSHC series, please contact [tpmg@niccomp.com](mailto:tpmg@niccomp.com)

### FEATURES

- STACKED METALLIZED POLYPHENYLENE SULFIDE (PPS) FILM
- STANDARD EIA 0805, 1206, 1210, 1913 AND 2416 SIZES
- WIDE TEMPERATURE RANGE (-55° +125°C)
- HIGH HEAT AND MOISTURE RESISTANT
- VERY STABLE TEMPERATURE, FREQUENCY, VOLTAGE, BIAS AND DIELECTRIC ABSORPTION CHARACTERISTICS
- REFLOW & FLOW SOLDERING APPLICABLE
- TAPE AND REEL PACKAGING

**NSHC IS  
RECOMMENDED  
FOR NEW DESIGNS**



**RoHS  
Compliant**  
includes all homogeneous materials

\*See Part Number System for Details

SPECIFICATIONS	Case Sizes				
	0805	1206	1210	1913	2416
Capacitance Range	100pF ~ .01µF	3300pF ~ .047µF	.015µF ~ .1µF	.047µF ~ .1µF	.12µF ~ .22µF
Voltage Ratings*	16Vdc (12Vrms), 50Vdc (40Vrms)				
Capacitance Tolerance	±5% Std, ±2% Opt.				
Temperature Range	-55°C ~ +125°C				
Dissipation Factor (20°C)	0.6% max. @ 1KHz				
Insulation Resistance (20°C)	3 Gigohms Minimum				
Dielectric Withstanding Voltage	150% of Rated Voltage 60 Seconds 175% of Rated Voltage for 5 Seconds				
Temperature Characteristic	±3% ΔC Maximum Over Temperature Range				
Dielectric Absorption	0.05 ~ 0.10% Typical				

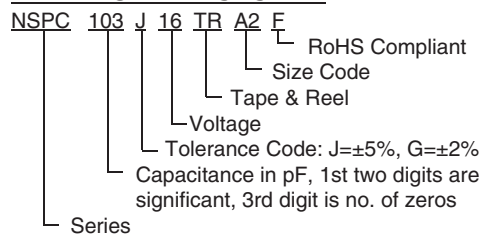
\* -AC Voltage Ratings (Vrms) From 60 hz to 30Khz. Contact NIC For Derating At Higher Frequencies.

### ENVIRONMENTAL CHARACTERISTICS

Life Test At +125°C 1,000 Hours at 125% of Rated Voltage	Capacitance Change	Within ±2% of Initial Value
	Dissipation Factor	0.66% Maximum
	Insulation Resistance	1 Gigohm Minimum
Resistance to Soldering Heat +260°C Peak	Capacitance Change	Within ±3% of Initial Value
	Dissipation Factor	0.66% Maximum
	Insulation Resistance	1 Gigohm Minimum
Humidity Load Life (Note 1): (1) 1000 Hours, +40°C (2) 500 Hours, +60°C	Capacitance Change	Within ±2% of Initial value
	Dissipation Factor	0.90% Maximum
	Insulation Resistance	(1) 1 Gigohm Minimum (2) 0.5 Gigohm Minimum
Solderability with 25% Wt Rosin-Methanol Flux	90% Minimum Coverage After 2.5 Second Dip into 255°C Solder Pot	

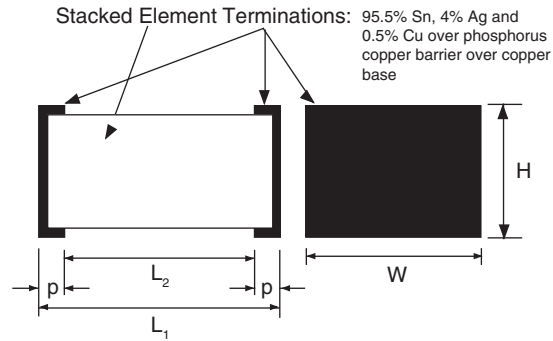
NOTE 1: At 90 ~ 95% Relative Humidity and Rated Voltage

### PART NUMBER SYSTEM



## STANDARD PRODUCTS AND SIZE CODE

Cap.	Code	Working Voltage (Vdc)	
		16	50
100pF	101	-	A1
120	121	-	A1
150	151	-	A1
180	181	-	A1
220	221	-	A1
270	271	-	A1
330	331	-	A1
390	391	-	A1
470	471	-	A1
560	561	-	A1
680	681	-	A1
820	821	-	A1
0.001	102	-	A1
0.0012	122	-	A1
0.0015	152	-	A1
0.0022	222	-	A1
0.0027	272	-	A1
0.0033	332	A1	B1
0.0039	392	A1	B1
0.0047	472	A1	B1
0.0056	562	A1	B1
0.0068	682	A1	B1
0.0082	822	A2	B2
0.010	103	A2	B2
0.012	123	B1	C1
0.015	153	B1	C1
0.018	183	B1	C2
0.022	223	B1	C2
0.027	273	B2	C2
0.033	333	B2	C3
0.039	393	B3	C3
0.047	473	B3	D1
0.056	563	C2	D1
0.068	683	C2	D1
0.082	823	C3	D2
0.10	104	C3	D2
0.12	124	-	E1
0.15	154	-	E3
0.18	184	-	E4
0.22	224	-	E5

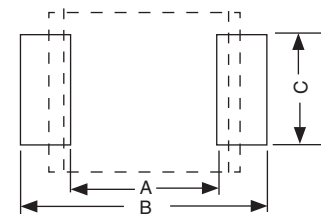


## DIMENSION (mm) AND CASE CODE

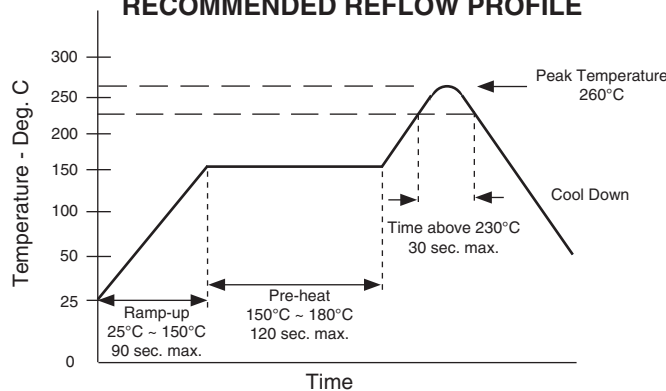
Case Code	Length L ±0.2	Width W	Height H ±0.2	p	EIA
A1	2.0	1.25 ± 0.2	0.8	0.45 ± 0.25	0805
A2			1.0		
B1	3.2	1.6 ± 0.2	0.8	0.65 ± 0.35	1206
B2			1.0		
B3			1.4		
C1	3.2	2.5 ± 0.2	1.0	0.65 ± 0.35	1210
C2			1.4		
C3			2.0		
D1	4.8	3.3 ± 0.3	1.4	0.35 ± 0.20	1913
D2			2.0		
E1	6.0	4.1 ± 0.3	1.8	0.35 ± 0.20	2416
E3			2.4		
E4			2.8		
E5			3.2		

## RECOMMENDED LAND PATTERN (mm)

EIA Size	A	B	C
0805	1.0	2.7	1.1
1206	2.2	3.8	1.4
1210	2.2	3.8	2.3
1913	2.6	6.6	3.0
2416	3.8	7.8	3.8



## RECOMMENDED REFLOW PROFILE



Solder within 1 year. Storage at +30°C and 60% RH